## B.A. in Chemistry with a Concentration in Secondary Education

	First Semester			Second Semester	
CHM 115	Elements & Compounds	3	CHM 116	The Chemical Reaction	3
CHM 113	Elements & Compounds Lab	1	CHM 114	The Chemical Reaction Lab	1
MTH 111	Calculus I	4	MTH 112	Calculus II	4
ENG 101	English 101	4	ENG 120	Intro to Lit & Culture	3
FYF 101	First Year Foundations	3	CS 125	Computer Science I	4
			ED 180	Educational Psychology	3
Semester Total		15	Semester	Total	18
	Third Semester			Fourth Semester	
CHM 231	Organic Chemistry I	3	CHM 232	Organic Chemistry II	3
CHM 233	Organic Chemistry I Lab	1	CHM 234	Organic Chemistry II Lab	1
PHY 201	Physics I	4	PHY 202	Physics II	4
ED 190	Effective Teaching	3	CHM 248	Analytical Chemistry	3
	Distr. Req. (PSY 101 rec'd)	3	CHM 246	Analytical Chemistry Lab	1
	Distribution Requirement	3	MTH 212	Multivariate Calculus	4
Semester Total		17	Semester	Total	16
	Fifth Semester			Sixth Semester	
CHM 341	Instrumental Analysis	3	CHM 322	Inorganic Chemistry	3
CHM 343	Instrumental Analysis Lab	1	CHM $365$	Medical Biochemistry	4
CHM $355$	Physical Chem./Life Sciences	3	CHM 370	Integrated Chemistry Lab	1
CHM 357	Physical Chem./Life Sci. Lab	1	CHM 390	Junior Seminar	1
EDSP 210	Teaching Special Needs	3	ED 191	Classroom Technology	3
	Distribution Requirement	3	EDSP 225	Special Ed Methodology	3
	Distribution Requirement	3			
Semester Total		17	Semester	Total	15
	Seventh Semester			Eighth Semester	
CHM 391	Senior Research	2	CHM 392	Senior Research	2
CHM 371	Integrated Chemistry Lab	1	EDSP 388	Inclusionary Practices	3
ED 220	Diverse Learners	3	ED 390	Student Teaching	12
ED 380	Content Literacy	3	99 -	8	
ED 371	Special Methods: Sciences	4			
01	Distribution Requirement	3			
Semester Total		16	Semester	Total	17
			Grand Total		131

 $<sup>\</sup>Rightarrow$  Students in the B.A. program must complete 2 credits (total) of Integrated Laboratory (CHM 370/371/372).

## Wilkes University Education Department Checklist

## Bachelor of Arts-CHEMISTRY With a Major\* or Minor in Secondary Education 2016-2017

General Education Requirements					
FYF 101 (3)					
Area I The Humanities (9)					
ENG 120 HST 101 PHL 101 or Foreign Language					
Area II The Scientific World (6) (met in major) (two different sub-areas required)  BIO 105 / 121 CHM 105 / 115 EES 105 / 221 / 230 / 240 / 251 PHY 105 / 174 / 201					
Area III The Social Sciences (6)					
ANT 101EC 102PS 111PSY 101 (required for minor)SOC 101					
Area IV The Visual and Performing Arts (3)					
ART 101 DAN 100 MUS 101 THE 100					

Skill Requirements
I. Computer Literacy (met in major)  CS 115 or higher  or two CI Courses
II. Written Communications (Required for certification) ENG 101 (4 credits)
III. Oral Communications  COM 101 or  Two Education OPO Courses:  EDSP 225, ED 220, ED 390
IV. Quantitative Reasoning (met in major) MTH 101 or higher Note: The PDE Requires six credits of Mathematics for all Teacher Certification Candidates:(3 credits)

WIN	
Advisor Date	
Chemistry Major Requirements	
CHM 115 Elements & Compounds	(3)
CHM 113 Elements & Compounds Lab	(1)
CHM 116 The Chemical Reaction	(3)
CHM 114 The Chemical Reaction Lab	(1)
CHM 231 Organic Chemistry I	(3)
CHM 233 Organic Chemistry I Lab	(1)
CHM 232 Organic Chemistry II	(3)
CHM 234 Organic Chemistry II Lab	(1)
CHM 248 Analytical Chemistry	(3)
CHM 246 Analytical Chemistry Lab	(1)
CHM 322 Inorganic Chemistry	(3)
CHM 341 Instrumental Analysis	(3)
CHM 343 Instrumental Analysis Lab	(1)
CHM 355 Physical Chemistry for Life Science	(3)
CHM 357 Physical Chemistry for Life Sci. Lab	
CHM 365 Medical Biochemistry	(3)
CHM 370 j/371 j/372 j (two credits total)	(2)
jcan each be taken for one or two credits	
CHM 390 Junior Seminar	(1)
CHM 391 Senior Research I (OPO)	(2)
CHM 392 Senior Research II (OPO)	(2)
CS 125	(4)
MTH 111	(4)
MTH 112	(4)
MTH 212	(4)
PHY 201	(4)
PHY 202	(4)

Major* and Minor Requirements for Secondary Education Certification						
ED 180	Educational Psychology	(3)				
ED 190	Effective Teaching	(3)				
ED 191	Integrating Technology in Classrooms (C.I.)	(3)				
ED 220	Teaching Cult. & Ling. Diverse Learners (OPO)	(3)				
EDSP 210	Teaching Students with Special Needs	(3)				
EDSP 225	Special Education Methodology (OPO)	(3)				
ED 345*	Assessment	(3)				
ED 371	Teaching Methods in Science	(4)				
ED375*	Middle Level & Secondary Ed. Methods	(4)				
ED 380	Content Area Literacy	(3)				
EDSP 388	Inclusionary Practices (taken with ED 390	(3)				
ED 390	Student Teaching (OPO)	(12)				
	total for the minor 40 cre *total for the major 47 cre					

<sup>\*</sup>Required for major. Completion of major in Secondary Education along with Chemistry major will take additional semester or summer coursework. Completion of the minor can be accomplished in eight semesters