

**CURRICULUM GUIDE**  
**Chemistry, B.S. (Chemistry Teaching Concentration)**  
**2022-2023**

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The schedule below is an **EXAMPLE** of how you can arrange your class schedule. Please consult your advisor for specific changes that may need to be made.

	Fall Semester	Spring Semester		
<b>Freshman Year</b>	SCO 100C	1	EDF 203	3
	CHE 111	3	CED 100	0
	CHE 111L	1	<sup>6</sup> SED 104 (fulfills Gen. Ed. 6)	3
	<sup>6</sup> MAT 234 (fulfills Gen. Ed. 2)	4	CHE 112	3
	<sup>6</sup> BIO 111 <i>or</i> 112 (fulfills Gen. Ed. 4)	4	CHE 112L	1
	<sup>6</sup> Gen. Ed. 1A (ENG 101)	3	<sup>6</sup> Gen. Ed. 1B (ENG 102)	3
		<sup>6</sup> Gen. Ed. 1C (Oral Comm.)	3	
	<b>TOTAL</b>	<b>16</b>	<b>TOTAL</b>	<b>16</b>
<b>Sophomore Year</b>	EDF 219	3	EDC 300	3
	CED 200	0	EDF 204	2
	CHE 250	2	EMS 300W	3
	CHE 361	3	CED 300	0.5
	CHE 361L	1	GLY 109	3
	<sup>6</sup> PHY 131 <i>or</i> 201 (fulfills Gen. Ed. 4)	5	PHY 132 <i>or</i> 202	5
	<i>❖ 30 hrs complete + apply to professional education program</i>			
	<b>TOTAL</b>	<b>14</b>	<b>TOTAL</b>	<b>16.5</b>
<b>Junior Year</b>	CHE 325	3	EDF 413	3
	CHE 325L	2	EMS 490	3
	CHE 362	3	CED 400	0.5
	CHE 362L	1	CHE 430	3
	Gen. Ed. 5A (History)	3	CHE 570	4
	Gen. Ed. 6 (Diversity)	3	CHE 400/500 Electives	2
	<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>15.5</b>
<b>Senior Year</b>	ESE 561 (fall only)	3	CED 499 (ACCT)	9
	CED 450 (fall only)	1	EMS 474	3
	† CHE/ FOR (400/500 level) elective	2		
	Gen. Ed. 3A (Arts)	3		
	Gen. Ed. 3B (Humanities)	3		
	Gen. Ed. 5B (Soc. & Behav. Sci.)	3		
	<b>APPLY FOR STUDENT TEACHING</b>			
	<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>12</b>
<b>TOTAL HOURS TO DEGREE COMPLETION</b>		<b>120</b>		

★ **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division CHE courses. MAT 107 or higher.  
 ❖ Student must have completed 30 hours by the end of the second semester and apply for admission to Professional Education Program.  
 ⚡ Must be completed before enrolling in CED 300 and applying to the Teacher Ed. program.

Course Number	Course Name
<b>GENERAL EDUCATION &amp; UNIVERSITY REQUIREMENTS (37)</b>	
SCO 100C	Student Success Seminar for Chemistry (1)
<b>CORE COURSE REQUIREMENTS (26)</b>	
[ CHE 111	General Chemistry I (3)
[ CHE 111L	General Chemistry Lab I (1)
[ CHE 112	General Chemistry II (3)
[ CHE 112L	General Chemistry Lab II (1)
CHE 250	Descriptive Inorganic Chemistry (2)
[ CHE 325	Analytical Chemistry (3)
[ CHE 325L	Analytical Chemistry Lab (2)
[ CHE 361	Organic Chemistry I (3)
[ CHE 361L	Organic Chemistry Lab I (1)
[ CHE 362	Organic Chemistry II (3)
[ CHE 362L	Organic Chemistry Lab II (1)
CHE 430	Biochemistry of Macromolecules (3)
<i>Bracketed items must be taken concurrently.</i>	
<b>CHEMISTRY TEACHING CONCENTRATION REQUIREMENTS (8)</b>	
CHE 570	Biophysical Chemistry (4)
† PLUS FOUR (4) HOURS from either 400 or 500 level CHE or FOR courses. (If CHE 495 is taken, only 3 hours can be applied to the major).	
<b>CHEMISTRY TEACHING CONCENTRATION SUPPORTING COURSE REQUIREMENTS (12)</b>	
<sup>6</sup> BIO 111 <i>or</i>	Cell and Molecular Biology (4)
<sup>6</sup> BIO 112	Ecology and Evolution (4)
GLY 109	Great Moments in Earth History (3)
<sup>6</sup> MAT 234	Calculus I (4)
<sup>6</sup> PHY 131 <i>or</i>	University Physics I (5)
<sup>6</sup> PHY 201	College Physics I (5)
PHY 132 <i>or</i>	University Physics II (5)
PHY 202	College Physics II (5)
<b>PROFESSIONAL EDUCATION REQUIREMENTS (37)</b>	
EDC 300	Differentiation Inclusive Classrooms (3)
EDF 203	Educational Foundations (3)
EDF 204	Emerging Instructional Technologies (2)
EDF 219	Human Development and Learning (3)
EDF 413	Assessment in Education (3)
EMS 300W	Curriculum & Instructional Design (3)
EMS 474	Disciplinary Literacy (3)
EMS 490	Classroom & Behavior Management in P-12 (1-3)
ESE 561	Teaching Science in the Secondary Schools (3)
<sup>6</sup> SED 104	Special Education Introduction (3)
<b>PLUS ELEVEN (11) HOURS of Clinical Experiences to include:</b>	
CED 100	Clinical I: Intro to the Education Prof. (0)
CED 200	Clinical II: Understanding the Learner (0)
CED 300	Clinical III: Curriculum and Instruct. Des. (.5)
CED 400	Clinical IV: Diagnosis & Perception (.5)
CED 450	Clinical V: Practicing Teaching (1)
CED 499	Supervised Student Teaching P-12 (9)
<i>(Following this curriculum and passing the appropriate standardized teacher exams will lead to certification to teach chemistry at the secondary education level.)</i>	

<sup>6</sup> Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.

**Upper division courses:** All students are required to have a minimum of 42 hrs. upper division (300-level or above) courses distributed throughout Major/Supporting/Gen Ed/Free Electives categories.

Refer to the University Catalog at <http://www.catalogs.eku.edu/> regarding University and General Education requirements. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix "W" following the course prefix and number (e.g. HUM 300W).

**Applied Critical & Creative Thinking (ACCT) Requirement:** Chemistry majors in this concentration will fulfill ACCT with CED 499. (Credit hours are incorporated into program requirements.)