

CHEMISTRY, BACHELOR OF SCIENCE WITH A CONCENTRATION IN CHEMISTRY TEACHING (B.S.)

Program Requirements

CIP Code: 40.0501

Summary Checklist for General Education

Code	Title	Hours
Element 1		
A:	Written Communication (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/)	3
B:	Written Communication (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/)	3
C:	Oral Communication (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/)	3
Element 2		
	Quantitative Reasoning (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-2/)	3
Element 3		
A:	Arts (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/)	3
B:	Humanities (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/)	3
Element 4		
	Natural Sciences (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-4/)	6
Element 5		
A:	Historical Science (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/)	3
B:	Social Behavioral Science (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/)	3
Element 6		
	Diversity of Perspectives Experiences (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-6/)	6
Total Hours		36

Students are expected to complete Elements 1 and 2 within their first 60 hours of college credit.

Major

Code	Title	Hours
University Graduation Requirements		
	General Education	36
	<i>Student Success Seminar</i>	

SCO 100C	Student Success Seminar in Chemistry (waived for transfers with 30+ hrs.)	1
Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)		
Major Requirements		
<i>Core Courses</i>		
CHE 111 & 111L	General Chemistry and General Chemistry Lab I	4
CHE 112 & 112L	General Chemistry II and General Chemistry Lab	4
CHE 250	Descriptive Inorganic Chemistry	2
CHE 325 & 325L	Analytical Chemistry and Analytical Chemistry Lab	5
CHE 361 & 361L	Organic Chemistry I and Organic Chemistry Lab I	4
CHE 362 & 362L	Organic Chemistry II and Organic Chemistry Lab II	4
CHE 430	Biochemistry of Macromolecules	3
Concentrations		
Students must select one of the following Concentrations:		
	Biochemistry	
	Biochemistry (ACS Certification Optional)	
	Pre-Health (Pre-Medical, Pre-Dental, Pre-Optometry, Pre-Physician Associate)	
	Chemistry	
	Chemistry (ACS Certification Optional)	
	Pre-Pharmacy	
	Chemistry Teaching	50
<i>Free Electives</i>		
	Choose from 7 hours of free electives	7
Total Hours		120

Concentration

Following this curriculum and passing the appropriate standardized teacher exams will lead to certification to teach chemistry at the secondary education level. The student must meet the 2.75 GPA requirement listed in the College of Education section under The Office of Teacher Education Services.

Code	Title	Hours
Concentration Courses		
CHE 570	Biophysical Chemistry I	4
	Choose from four hours of either 400- or 500-level CHE or FOR courses ¹	4
<i>Supporting Course Requirements</i>		
(Must also complete all Professional Education Requirements)		
BIO 111	Cell and Molecular Biology (Element 4) ^G	
	or BIO 112 Ecology and Evolution	
GLY 109	Great Moments in Earth History (Element 4) ^G	
MAT 234	Calculus I (Element 2) ^{G,2}	
PHY 131	College Physics I (Element 4) ^G	
	or PHY 201 University Physics I	
PHY 132	College Physics II	5
	or PHY 202 University Physics II	
<i>Professional Education Requirements</i>		

EDC 300	Differentiation in 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 and Instructional Design	3
EMS 474	Disciplinary Literacy	3
EMS 490	Classroom & Behavior Management	3
ESE 561	Teaching Science in Secondary School	3
SED 104	Special Education Introduction (Element 6) ^G	

Clinical Experiences:

CED 100	Clinical I: Introduction to the Education Profession	0
CED 200	Clinical II: Understanding the Learner	0
CED 300	Clinical III: Curriculum and Instructional Design	0.5
CED 400	Clinical IV: Diagnosis and Prescription	0.5
CED 450	Clinical V: Practicing Teaching	1
CED 499	Clinical VI: The Professional Semester	9

Exit Requirements

PRAXIS Examination

Appropriate PRAXIS exams must be completed for each area of certificate on being recommended.

Students must register for and take the PRAXIS exam which correlates to their degree program, per College of Education requirements. Refer to Degree Works for exam details. The PRAXIS exam must be taken prior to student teaching.

Total Hours **50**

G

Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.

1

If CHE 495A Independent Chemical Research and/or CHE 495B Chemistry Laboratory Independent Research: ___ is taken, only three hours can be applied to the major.

2

Preparatory courses in mathematics may be required before admission to MAT 122 Precalculus Mathematics or MAT 234 Calculus I.