

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

## Program Requirements

CIP Code: 40.0501

### Summary Checklist for General Education

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

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

### Major

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

SCO 100C	Student Success Seminar in Chemistry (waived for transfers with 30+ hrs.)	1
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Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)

### Major Requirements

#### Core Courses

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	30
Chemistry (ACS Certification Optional)	
Pre-Pharmacy	
Chemistry Teaching	
<i>Free Electives</i>	
Choose from 27 hours of free electives	27
<b>Total Hours</b>	<b>120</b>

### Concentration

With all specified courses, this program option produces a degree certified by the American Chemical Society (ACS).

Code	Title	Hours
<b>Concentration Courses</b>		
CHE 385W	Chemical Literature	3
CHE 425 & 425L	Instrumental Analysis and Instrumental Analysis Lab	4
CHE 450	Inorganic Chemistry	3
CHE 485	Chemistry Seminar	1
CHE 570	Biophysical Chemistry I	4
Choose from one hour of the following:		1
CHE 411	Practicum	
CHE 432	Biochemistry Laboratory	
CHE 495A	Independent Chemical Research	
CHE 495B	Chemistry Laboratory Independent Research: ___	
CHE 501L	Chemtopics Lab: ___	
or CHE 502	Polymers & Particles	
Choose from nine hours of either 400- or 500-level CHE or FOR electives		9
<i>Supporting Course Requirements</i>		

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BIO 111	Cell and Molecular Biology (Element 4) <sup>G</sup>	
MAT 234	Calculus I (Element 2) <sup>G,1</sup>	
PHY 131	College Physics I (Element 4) <sup>G</sup>	
	or PHY 201 University Physics I	
PHY 132	College Physics II	5
	or PHY 202 University Physics II	
<b>Total Hours</b>		<b>30</b>

**G**

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

**1**

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