

CHEMISTRY, BACHELOR OF SCIENCE WITH A CONCENTRATION IN CHEMISTRY (ACS CERTIFICATION) (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)		48
Pre-Pharmacy		
Chemistry Teaching		
<i>Free Electives</i>		
Choose from 9 hours of free electives		9
Total Hours		120

Concentration

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

Code	Title	Hours
Concentration Courses		
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 502	Polymers & Particles	1
CHE 515 & 515L	Synthetic & Analytical Methods and Synthetic & Analytical Methods Lab	5
CHE 574 & 574L	Physical Chemistry I and Physical Chemistry Lab I	4
CHE 575 & 575L	Physical Chemistry II and Physical Chemistry Lab II	4

Supporting Course Requirements

BIO 111	Cell and Molecular Biology (Element 4) ^G	
MAT 234	Calculus I (Element 2) ^{G,1}	
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	
PHY 201	University Physics I	5
PHY 202	University Physics II	5
MAT 244	Calculus II	4
MAT 254	Calculus III	4
Total Hours		48

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

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

At least 3 hours of CHE 495A Independent Chemical Research and/or CHE 495B Chemistry Laboratory Independent Research: ___ (chemistry research) is recommended.