

**CURRICULUM GUIDE**  
**Chemistry, B.S. (Pre-Pharmacy Concentration)**  
**2023-2024**

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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.

Students in Pre-Professional programs are encouraged to see the Pre-Professional program advisor in Science 1234, for help with scheduling.

	Fall Semester		Spring Semester		Course Number	Course Name
<b>Freshman Year</b>	SCO 100C	1	BIO 112	4	<b>GENERAL EDUCATION &amp; UNIVERSITY REQUIREMENTS (37)</b>	
	<sup>¶</sup> BIO 111 (fulfills Gen. Ed. 4)	4	CHE 112	3	SCO 100C	Student Success Seminar for Chemistry (1)
	CHE 111	3	CHE 112L	1	<b>CORE COURSE REQUIREMENTS (26)</b>	
	CHE 111L	1	Gen. Ed. 1B (ENG 102)	3	[ CHE 111	General Chemistry I (3)
	§ <sup>¶</sup> MAT 234 (fulfills Gen. Ed. 2)	4	Gen. Ed. 1C (Oral Comm.)	3	[ CHE 111L	General Chemistry Lab I (1)
	Gen. Ed. 1A (ENG 101)	3			[ CHE 112	General Chemistry II (3)
<b>TOTAL</b>	<b>16</b>	<b>TOTAL</b>	<b>14</b>	[ CHE 112L	General Chemistry Lab II (1)	
<b>Sophomore Year</b>	BIO 307	3	BIO 308	3	CHE 250	Descriptive Inorganic Chemistry (2) (fall only)
	CHE 250 (fall only)	2	CHE 362	3	[ CHE 325	Analytical Chemistry (3)
	CHE 361	1	CHE 362L	1	[ CHE 325L	Analytical Chemistry Lab (2)
	CHE 361L	3	PHY 132 <sup>or</sup> ‡ 202	5	[ CHE 361	Organic Chemistry I (3)
	<sup>¶</sup> PHY 131 <sup>or</sup> ‡ 201 (fulfills Gen. Ed. 4)	5	STA 270	4	[ CHE 361L	Organic Chemistry Lab I (1)
					[ CHE 362	Organic Chemistry II (3)
<b>TOTAL</b>	<b>14</b>	<b>TOTAL</b>	<b>16</b>	[ CHE 362L	Organic Chemistry Lab II (1)	
<b>Junior Year</b>	CHE 385	3	BIO 273 <sup>or</sup> 320	4	CHE 430	Biochemistry of Macromolecules (3)
	CHE 325 (fall only)	3	CHE 349, 349A-N, 495A, <sup>or</sup> 495B	3	Bracketed items must be taken concurrently.	
	CHE 325L (fall only)	2	CHE 431 (spring only)	3	<b>PRE-PHARMACY CONCENTRATION REQUIREMENTS (22)</b>	
	CHE 430	3	CHE 432 (spring only)	1	CHE 385	Chemical Literature (3)
	CHE 570	4	Gen. Ed. 3A (Arts)	3	[ CHE 425	Instrumental Analysis (3) (fall only)
	ECO 230	3			[ CHE 425L	Instrumental Analysis Lab (1) (fall only)
<b>TOTAL</b>	<b>18</b>	<b>TOTAL</b>	<b>14</b>	CHE 431	Metabolic Biochemistry (3) (spring only)	
<b>Senior Year</b>	CHE 425 (fall only)	3	PHI 383	3	CHE 432	Biochemistry Laboratory (1) (spring only)
	CHE 425L (fall only)	1	Gen. Ed. 3B (Humanities)	3	CHE 450	Inorganic Chemistry (3) (fall only)
	CHE 450 (fall only)	3	Gen. Ed. 5A (History)	3	CHE 485	Chemistry Seminar (1)
	CHE 485	1	Gen. Ed. 6 (Diversity)	3	CHE 570	Biophysical Chemistry I (4)
	<sup>¶</sup> PSY 200 (fulfills Gen. Ed. 5B)	3	Free Elective	2	PLUS THREE (3) HOURS selected from a combination of the following:	
	Gen. Ed. 6 (Diversity)	3			CHE 349	Applied Learning in Chemistry (0.5-8)
<b>TOTAL</b>	<b>14</b>	<b>TOTAL</b>	<b>14</b>	CHE 349A-N	Cooperative Study: Chemistry (0.5-8)	
<b>TOTAL HOURS TO DEGREE COMPLETION</b>				<b>120</b>	CHE 495A	Independent Chemical Research (1)
					CHE 495B	Chemistry Lab. Independent Res. (1-3)

\* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division courses.  
 § A preparatory course in mathematics (MAT 122) may be required before admission to MAT 234.

**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.

<b>PRE-PHARMACY CONCENTRATION SUPPORTING COURSE REQUIREMENTS (33)</b>	
<sup>¶</sup> BIO 111	Cell and Molecular Biology (4)
BIO 112	Ecology and Evolution (4)
BIO 307	Human Anatomy & Physiology I (3)
BIO 308	Human Anatomy & Physiology II (3)
BIO 273 <sup>or</sup> BIO 320	Clinical Microbiology (4)
ECO 230	Principles of Microbiology (4)
<sup>¶</sup> MAT 234	Principles of Microeconomics (3)
PHI 383	Calculus I (4)
<sup>¶</sup> PHY 131 <sup>or</sup> ‡ PHY 201	Health and Biomedical Ethics (3)
PHY 132 <sup>or</sup> ‡ PHY 202	College Physics I (5)
<sup>¶</sup> PSY 200	University Physics I (5)
STA 270	College Physics II (5)
	University Physics II (5)
	Introduction to Psychology (3)
	Applied Statistics (4)
‡ Calculus based Physics (PHY 201 and 202) is recommended by the ACS and ASBMB.	
<b>FREE ELECTIVES (2)</b>	

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