

CURRICULUM GUIDE
Chemistry, B.S. (Pre-Pharmacy Concentration)
2021-2022

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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
Freshman Year	SCO 100C	1	BIO 112	4	GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
	[¶] BIO 111 (fulfills Gen. Ed. 4)	4	CHE 112	3	SCO 100C	Student Success Seminar for Chemistry (1)
	CHE 111	3	CHE 112L	1	CORE COURSE REQUIREMENTS (26)	
	CHE 111L	1	Gen. Ed. 1B (ENG 102)	3	CHE 111	General Chemistry I (3)
	[§] 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)
	TOTAL	16	TOTAL	14	CHE 112L	General Chemistry Lab II (1)
Sophomore Year	BIO 307	3	BIO 308	3	CHE 250	Descriptive Inorganic Chemistry (2)
	CHE 250	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 ^{or} ‡ 202	5	CHE 361	Organic Chemistry I (3)
	[¶] PHY 131 ^{or} ‡ 201 (fulfills Gen. Ed. 4)	5	STA 270	4	CHE 361L	Organic Chemistry Lab I (1)
					CHE 362	Organic Chemistry II (3)
	TOTAL	14	TOTAL	16	CHE 362L	Organic Chemistry Lab II (1)
Junior Year	CHE 385W	3	BIO 273 ^{or} 320	4	CHE 430	Biochemistry of Macromolecules (3)
	CHE 425 (fall only)	3	CHE 349, 349A-N, 495A (ACCT) ^{or} 495B (ACCT)	3	<i>Bracketed items must be taken concurrently.</i>	
	CHE 425L (fall only)	1			PRE-PHARMACY CONCENTRATION REQUIREMENTS (22)	
	CHE 430	3			CHE 385W	Chemical Literature (writing intensive) (3)
	CHE 570	4			CHE 425	Instrumental Analysis (3) (fall only)
	ECO 230	3			CHE 425L	Instrumental Analysis Lab (1) (fall only)
					CHE 431	Metabolic Biochemistry (3)
	TOTAL	17	TOTAL	16	CHE 432	Biochemistry Laboratory (1)
Senior Year	CHE 450	3	PHI 383	3	CHE 450	Inorganic Chemistry (3)
	CHE 485	1	Gen. Ed. 3B (Humanities)	3	CHE 485	Chemistry Seminar (1)
	[¶] PSY 200 (fulfills Gen. Ed. 5B)	3	Gen. Ed. 5A (History)	3	CHE 570	Biophysical Chemistry (4)
	Gen. Ed. 3A (Arts)	3	Gen. Ed. 6 (Diversity)	3	PLUS THREE (3) HOURS selected from a combination of the following:	
	Gen. Ed. 6 (Diversity)	3	Free Elective	2	CHE 349	Applied Learning in Chemistry (0.5-8)
	TOTAL	13	TOTAL	14	CHE 349A-N	Cooperative Study: Chemistry (0.5-8)
TOTAL HOURS TO DEGREE COMPLETION				120	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 CHE courses. BIO 378, MAT 122 (see § below); PHY 131 and/or 201.

§ 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. 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 will fulfill ACCT with CHE 411, 495A, 495B, 515/515L, or CED 499. (Credit hours are incorporated into program requirements.)

[¶] BIO 111 Cell and Molecular Biology (4)
 BIO 112 Ecology and Evolution (4)
 BIO 307 Human Anatomy & Physiology I (3)
 BIO 273 ^{or} BIO 320 Clinical Microbiology (4)
 BIO 308 Principles of Microbiology (4)
 BIO 308 Human Anatomy & Physiology II (3)
 ECO 230 Principles of Microeconomics (3)
[¶] MAT 234 Calculus I (4)
 PHI 383 Health and Biomedical Ethics (3)
[¶] PHY 131 ^{or} ‡ PHY 201 College Physics I (5)
 University Physics I (5)
 PHY 132 ^{or} ‡ PHY 202 College Physics II (5)
 University Physics II (5)
[¶]PSY 200 Introduction to Psychology (3)
 STA 270 Applied Statistics (4)
 ‡ Calculus based Physics (PHY 201 and 202) is recommended by the ACS and ASBMB.
FREE ELECTIVES (2)

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