

CURRICULUM GUIDE
Chemistry, B.S. (Biochemistry (ACS Certified), Pre-Medical and
Pre-Dental Concentration)
2017-2018
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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 NSB Lobby, Rm. 2108, for help with scheduling.

	Fall Semester	Spring Semester
Freshman Year	SCO 100C	CHE 112
	CHE 111	CHE 112L
	CHE 111L	MAT 244 <i>or</i> 244H
	§ ⁶ MAT 234 <i>or</i> 234H (fulfills Gen. Ed. 2)	Gen. Ed. 1B (ENG 102)
	⁶ BIO 111 (fulfills Gen. Ed. 4)	Gen. Ed. 1C (Oral Comm.)
	Gen. Ed. 1A (ENG 101)	Gen. Ed. 6 (Diversity)
	TOTAL	TOTAL
Sophomore Year	CHE 361	CHE 325
	CHE 361L	CHE 325L
	CHE 385W	CHE 362
	BIO 315	CHE 362L
	⁶ PHY 131 <i>or</i> † 201 (fulfills Gen. Ed. 4)	PHY 132 <i>or</i> † 202
	TOTAL	TOTAL
	Junior Year	CHE 430
♣ CHE 570		CHE 425L
◇ ⁶ PSY 200 (Pre-Med/Pre-Dental) <i>or</i> Gen. Ed. 5B (Soc. & Behav. Sci.) (Biochem)		CHE 431
◇ SOC 131 (Pre-Med/Pre-Dental) <i>or</i> Free Elective (Biochem)		CHE 432
Gen. Ed. 3A (Arts)		Gen. Ed. 3B (Humanities)
TOTAL		Gen. Ed. 5A (History)
Senior Year		CHE 484
	CHE 450	CHE 515 (ACCT)
	BIO 531	† CHE/FOR Lab Requirements
	† CHE/FOR Lab Requirements	Free Elective
	Gen. Ed. 6 (Diversity)	Free Elective
	Free Elective	
	TOTAL	TOTAL
TOTAL HOURS TO DEGREE COMPLETION		120

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100C	Student Success Seminar for Chemistry (1)
CORE COURSE REQUIREMENTS (38)	
[CHE 111	General Chemistry I (3)
[CHE 111L	General Chemistry Lab I (1)
[CHE 112	General Chemistry II (3)
[CHE 112L	General Chemistry Lab II (1)
[CHE 325	Analytical Chemistry (3)
[CHE 325L	Analytical Chemistry Lab (2)
[CHE 361	Organic Chemistry I (3)
[CHE 361L	Organic Chemistry Lab I (1)
[CHE 362	Organic Chemistry II (3)
[CHE 362L	Organic Chemistry Lab II (1)
CHE 385W	Chemical Literature (writing intensive) (3)
[CHE 425	Instrumental Analysis (3)
[CHE 425L	Instrumental Analysis Lab (1)
CHE 450	Inorganic Chemistry (3)
CHE 484	Chemistry Colloquium (1)
CHE 485	Chemistry Seminar (1)
CHE 515	Synthetic & Analytical Methods (5)
Bracketed items must be taken concurrently.	
BIOCHEMISTRY, PRE-MEDICAL AND PRE-DENTAL CONCENTRATION REQUIREMENTS (13)	
CHE 430	Biochemistry of Macromolecules (3)
CHE 431	Metabolic Biochemistry (3)
CHE 432	Biochemistry Laboratory (1)
CHE 570	Biophysical Chemistry I (4)
† PLUS TWO (2) HOURS selected from the following Chemistry/Forensic Labs:	
CHE 495A	Independent Chemical Research (1)
CHE 495B	Chemistry Lab Independent Res. (1-3)
CHE 501L	Chemtopics Lab (1)
CHE 574L	Physical Chemistry Lab I (1)
CHE 575L	Physical Chemistry Lab II (1)
FOR 442L	Drugs and Toxicology Lab (1)
BIOCHEMISTRY, PRE-MEDICAL AND PRE-DENTAL CONCENTRATION SUPPORTING COURSE REQUIREMENTS (21-24)	
⁶ BIO 111	Cell and Molecular Biology (4)
BIO 315	Genetics (4)
BIO 531	Principles of Molecular Biology I (4)
§ ⁶ MAT 234 <i>or</i> MAT 234H	Calculus I (4)
MAT 244	Honors Calculus (4)
<i>or</i> MAT 244	Calculus II (4)
<i>or</i> MAT 235H	Honors Calculus II (4)
⁶ PHY 131 <i>or</i> † PHY 201	University Physics I (5)
PHY 132 <i>or</i> † PHY 202	College Physics I (5)
PHY 132 <i>or</i> † PHY 202	University Physics II (5)
College Physics II (5)	
◇ ⁶ PSY 200	Introduction to Psychology (3)
◇ SOC 131	Introductory Sociology (3)
† Calculus based Physics (PHY 201 and 202) is recommended by the ACS and ASBMB.	
◇ PSY 200 and SOC 131 are supporting course requirements for the Pre-Medical and Pre-Dental options ONLY. These courses are NOT required for the Biochemistry option.	
FREE ELECTIVES (8-11)	
⁶ Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.	

* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division CHE courses. MAT 122 (see § below); PHY 131 and/or 201.

§ A preparatory course in mathematics (MAT 122) may be required before admission to MAT 234.

♣ **500 Level Courses:** Approval to enroll in a 500 level course before a student has attained senior status (90 or more hours) requires approval from the dean of the college offering the course.

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 515. (Credit hours are incorporated into program requirements.)