

CURRICULUM GUIDE
Biomedical Sciences, B.S. (Pre-Medical Concentration)
2022-2023

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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.

	Fall Semester	Spring Semester	Course Number	Course Name	
Freshman Year	SCO 100B	1	BIO 112	4	
	BIO 111	4	CHE 112	3	
	^o CHE 111 (fulfills Gen. Ed. 4)	3	CHE 112L	1	
	CHE 111L	1	PSY 200 <i>or</i> 200W	3	
	MAT 120 or higher (MAT 234 recommended)	3-5 (4)	^o SOC 131 <i>or</i> HON 312W (fulfills Gen. Ed. 5B)	3	
	Gen. Ed. 1a (ENG 101)	3	Gen. Ed. 1B (ENG 102)	3	
	TOTAL	15-17	TOTAL	17	
	Sophomore Year	BIO 319	4	BIO 332	1
		CHE 361	3	BIO 320 (ACCT)	4
		CHE 361L	1	CHE 362	3
^o PHY 131 <i>or</i> PHY 201 (fulfills Gen. Ed. 4)		5	CHE 362L	1	
Gen. Ed. 1C (CMS 100 <i>or</i> 210)		3	PHY 132 <i>or</i> PHY 202	5	
			♣ Free Elective	0-3	
TOTAL		16	TOTAL	14-17	
Junior Year	BIO 331	3	BIO 315	4	
	CHE 430	3	BIO 348	3	
	^o STA 215 <i>or</i> STA 270 (fulfills Gen. Ed. 2) (STA 270 recommended)	3-4	CHE 431	3	
	PHI 383 <i>or</i> PHI 383W	3	INF 104	3	
			Gen Ed. 3B (Humanities)	3	
	TOTAL	12-13	TOTAL	16	
	Senior Year	PSY 280 <i>or</i> 308	3	BIO 495	1
†Restricted Elective		3-4	†Restricted Elective	3-4	
Gen Ed. 3A (Arts)		3	Gen. Ed. 5A (History)	3	
Gen. Ed. 6 (Diversity)		3	Gen Ed. 6 (Diversity)	3	
♣ Free Elective		0-3	Free Elective	3	
			♣ Free Elective	0-2	
TOTAL		12-16	TOTAL	13-16	
TOTAL HOURS TO DEGREE COMPLETION		120			
<p>GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)</p> <p>SCO 100B Student Success Seminar for Biology (1)</p> <p>CORE COURSE REQUIREMENTS (28)</p> <p>BIO 111 Cell and Molecular Biology (4) BIO 112 Ecology and Evolution (4) BIO 315 Genetics (4) BIO 319 Zoology (4) BIO 320 Principles of Microbiology (4) BIO 331 Cell Biology (3) BIO 332 Careers in Biomedical Sciences (1) BIO 348 Vertebrate Physiology (3) BIO 495 Evolution Theory and Application (1)</p> <p>PRE-MEDICAL RESEARCH CONCENTRATION REQUIREMENTS (24-28)</p> <p>† *CHE 362 Organic Chemistry II (3) † *CHE 362L Organic Chemistry Lab II (1) *CHE 430 Biochemistry of Macromolecules (3) *CHE 431 Metabolic Biochemistry (3) *MAT 120 (or higher) Trigonometry (3) (or higher (3-5)) *PHY 132 <i>or</i> College Physics II (5) *PHY 202 University Physics II (5)</p> <p>† PLUS 6 (SIX) HOURS selected from the following (restricted elective):</p> <p>BIO 342 Comparative Vertebrate Anatomy (4) BIO 527 Immunology (3) BIO 528 Virology (3) BIO 531 Principles of Molecular Biology I (3) BIO 535 Pathogenic Microbiology (4) BIO 546 Histology (4) BIO 547 Comparative Vert. Embryology (4) BIO 549 Neurobiology (3) BIO 598 Special Problems (1-6) *CHE 432 Biochemistry Laboratory (1)</p> <p>SUPPORTING COURSE REQUIREMENTS (23-24)</p> <p>†^oCHE 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 361 Organic Chemistry I (3) †*CHE 361L Organic Chemistry Lab I (1) INF 104 Computer Literacy with Software Apps. (3) PHI 383 <i>or</i> Health & Biomedical Ethics (3) PHI 383W Health & Biomedical Ethics (writing intensive) (3) †*PHY 131 <i>or</i> College Physics I (5) †*PHY 201 University Physics I (5) †STA 215 <i>or</i> Intro. to Statistical Reasoning (3) *STA 270 Applied Statistics I (4) PSY 200 <i>or</i> Introduction to Psychology (3) PSY 200W Introduction to Psychology (writing intensive) (3) PSY 280 <i>or</i> Lifespan Developmental Psych. (3) PSY 308 Abnormal Psychology (3) †SOC 131 <i>or</i> Introductory Sociology (3) †*HON 312W Honors Seminar in the Social and Behavioral Sciences: _____ (3)</p> <p>Bracketed items must be taken concurrently.</p> <p>FREE ELECTIVES (3-8)</p>					

* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division BIO courses. CHE 111/111L, 112/112L, 361/361L, 362/362L, 366, 430, and/or 366; MAT 112, 114 or higher; PHY 131 and/or 201.

♣ Due to variable course hour choices for MAT requirement and concentration requirements, marked free electives may also be variable. Consult with your advisor to ensure you have a minimum of 120 total credit hours for graduation.

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: Biology majors will fulfill ACCT with one of the following: BIO 320, 349, 598, HON 420 with a thesis topic approved by the Biology department, a program-approved leadership experience, or a program-approved study abroad experience. (Credit hours are incorporated into program requirements.)

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