

CURRICULUM GUIDE
Biomedical Sciences, B.S. (Pre-Medical 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.

	Fall Semester		Spring Semester	
Freshman Year	SCO 100B	1	BIO 112	4
	BIO 111	4	CHE 112	3
	⁶ CHE 111 (fulfills Gen. Ed. 4)	3	CHE 112L	1
	CHE 111L	1	PSY 200, 200W, 280, <i>or</i> 308 (PSY 200 recommended)	3
	MAT 120 or higher (MAT 234 recommended)	3-5 (4)	Gen. Ed. 1B (ENG 102)	3
	Gen. Ed. 1a (ENG 101)	3	⁶ SOC 131 <i>or</i> HON 312W (fulfills Gen. Ed. 5B)	3
	TOTAL	15-17	TOTAL	17
Sophomore Year	BIO 331	3	BIO 332	1
	CHE 361	3	BIO 320 (ACCT)	4
	CHE 361L	1	CHE 362	3
	⁶ 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 (PSY 308 recommended)	3
	TOTAL	15	TOTAL	17
Junior Year	CHE 430	3	BIO 315	4
	⁶ STA 215 <i>or</i> STA 270 (fulfills Gen. Ed. 2) (STA 270 recommended)	3-4	CHE 431	3
	BIO 348	3	INF 104	3
	PHI 383 <i>or</i> PHI 383W	3	†Restricted Elective	3-4
	Gen. Ed. 6 (Diversity)	3		
	TOTAL	15-16	TOTAL	13-14
Senior Year	BIO 318 <i>or</i> 319	4	BIO 495	1
	†Restricted Elective	3-4	Gen Ed. 3B (Humanities)	3
	Gen Ed. 3A (Arts)	3	Gen. Ed. 5A (History)	3
	Free Elective	3	Gen Ed. 6 (Diversity)	3
	Free Elective*	0-2	Free Elective*	0-3
	TOTAL	13-16	TOTAL	12*-13
TOTAL HOURS TO DEGREE COMPLETION		120		

* **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; PSY 200.

♣ Due to variable course hour choices in the concentration requirements, marked free electives may also be variable. Consult with your advisor to ensure you have a minimum of 12 hours per semester to maintain full-time standing and 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.)

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100B	Student Success Seminar for Biology (1)
CORE COURSE REQUIREMENTS (28)	
BIO 111	Cell and Molecular Biology (4)
BIO 112	Ecology and Evolution (4)
BIO 315	Genetics (4)
BIO 318 <i>or</i> BIO 319	Botany (4) 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)
PRE-MEDICAL RESEARCH CONCENTRATION REQUIREMENTS (24-28)	
*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> *PHY 202	College Physics II (5) University Physics II (5)
† PLUS 6 (SIX) HOURS selected from the following (restricted elective):	
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 598	Special Problems (1-3)
*CHE 432	Biochemistry Laboratory (1)
SUPPORTING COURSE REQUIREMENTS (20-21)	
⁶ 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 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> PHI 383W	Health & Biomedical Ethics (3) Health & Biomedical Ethics (writing intensive) (3)
*PHY 131 <i>or</i> *PHY 201	College Physics I (5) University Physics I (5)
⁶ STA 215 <i>or</i> *STA 270	Intro. to Statistical Reasoning (3) Applied Statistics I (4)
PSY 200 <i>or</i> PSY 200W <i>or</i> *PSY 280 <i>or</i> *PSY 308	Introduction to Psychology (3) Introduction to Psychology (writing intensive) (3) Lifespan Developmental Psych. (3) Abnormal Psychology (3)
⁶ SOC 131 <i>or</i> ⁶ *HON 312W	Introductory Sociology (3) Honors Seminar in the Social and Behavioral Sciences: _____ (3)
Bracketed items must be taken concurrently.	
FREE ELECTIVES (6-11)	

⁶ Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.