

**CURRICULUM GUIDE**  
**Biology, B.S. (Teaching 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.

	Fall Semester		Spring Semester		Course Number	Course Name
<b>Freshman Year</b>	SCO 100B	1	EDF 203	3	<b>GENERAL EDUCATION &amp; UNIVERSITY REQUIREMENTS (37)</b>	
	BIO 111	4	CED 100	0	<b>SCO 100B Student Success Seminar for Biology (1)</b>	
	☉ CHE 111 (fulfills Gen. Ed. 4)	3	☉ SED 104 (fulfills Gen. Ed. 6)	3	<b>CORE COURSE REQUIREMENTS (29)</b>	
	CHE 111L	1	BIO 112	4	BIO 111	Cell and Molecular Biology (4)
	☉ ☉ † MAT Requirement (fulfills Gen. Ed. 2)	3-5	CHE 112	3	BIO 112	Ecology and Evolution(4)
	☉ Gen. Ed. 1A (ENG 101)	3	CHE 112L	1	BIO 315	Genetics (4)
			☉ Gen. Ed. 1B (ENG 102)	3	BIO 316	Ecology (4)
	<b>TOTAL</b>	<b>15-17</b>	<b>TOTAL</b>	<b>17</b>	BIO 318	Botany (4)
					BIO 319	Zoology (4)
					BIO 320	Principles of Microbiology (4)
				BIO 495	Evolution Theory and Application (1)	
<b>Sophomore Year</b>	BIO 319	4	EDF 219	3	<b>BIOLOGY TEACHING CONCENTRATION REQUIREMENTS (3)</b>	
	CHE 361	3	CED 200	0	<b>BIO 348 Animal Physiology (3)</b>	
	CHE 361L	1	BIO 318	4	<b>SUPPORTING COURSE REQUIREMENTS (21-26)</b>	
	☉ Gen. Ed. 1C (Oral Comm.)	3	CHE 362	3	☉ CHE 111	General Chemistry I (3)
	Gen. Ed. 3B (Humanities) (PHI 110, 130, 300, or 320 recommended)	3	CHE 362L	1	CHE 111L	General Chemistry Lab I (1)
	Gen. Ed. 5B (Soc. & Behav. Sci.)	3	Gen. Ed. 3A (Arts)	3	* CHE 112	General Chemistry II (3)
			Gen. Ed. 5A (History)	3	L* CHE 112L	General Chemistry Lab II (1)
	❖ 30 hrs complete + apply to professional education program				* CHE 361	Organic Chemistry I (3)
	<b>TOTAL</b>	<b>17</b>	<b>TOTAL</b>	<b>17</b>	* CHE 361L	Organic Chemistry Lab I (1)
					* CHE 362	Organic Chemistry II (3)
				L* CHE 362L	Organic Chemistry Lab II (1)	
<b>Junior Year</b>	EDC 300	3	EDF 413	3	☉ PHY 131 or PHY 201	College Physics I (5)
	EDF 204	2	EMS 490	3	☉ PHY 201	University Physics I (5)
	CED 300	0.5	CED 400	0.5	PHY 132 or PHY 202 or GLY 108	College Physics II (5)
	EMS 300W	3	BIO 320 (ACCT)	4	☉ STA 215 or ☉ STA 270	University Physics II (5)
	BIO 315	4	BIO 348	4	GLY 108	Plate Tectonics: The Active Earth (3)
	☉ PHY 131 or 201 (fulfills Gen. Ed. 4)	5	§ PHY 132, 202 or GLY 108	3-5	☉ STA 215 or ☉ STA 270	Intro. to Statistical Reasoning (3)
						Applied Statistics I (4)
	<b>TOTAL</b>	<b>17.5</b>	<b>TOTAL</b>	<b>17.5-19.5<sup>§</sup></b>	<b>† PLUS ONE (1) MATHEMATICS COURSE SELECTED FROM (any of which can count towards General Education, Element 2):</b>	
					* MAT 120	Trigonometry (3)
					* MAT 122	Precalculus Mathematics (5)
				* MAT 211	Applied Calculus (3)	
				* MAT 234	Calculus I (4)	
<b>Senior Year</b>	ESE 561	3	CED 499	9	Bracketed items must be taken concurrently.	
	CED 450 (fall only)	1	EMS 474	3	<b>PROFESSIONAL EDUCATION REQUIREMENTS (37)</b>	
	BIO 316	4			EDC 300	Differentiation Inclusive Classrooms (3)
	BIO 495	1			EDF 203	Philosophical & Historical Found. of Ed. (3)
	STA 215 or 270	3-4			EDF 204	Emerging Instructional Technologies (2)
	Gen. Ed. 6 (Diversity)	3			EDF 219	Human Development and Learning (3)
					EDF 413	Assessment in Education (3)
	<b>APPLY FOR STUDENT TEACHING</b>				EMS 300W	Curriculum & Instructional Design (3)
	<b>TOTAL</b>	<b>15-16</b>	<b>TOTAL</b>	<b>12</b>	EMS 474	Teaching Content Reading (3)
					EMS 490	Classroom & Behavior Management in P-12 (3)
				ESE 561	Teaching Science in the Secondary Schools (3)	
				☉ SED 104	Introduction to Special Education (3)	
<b>TOTAL HOURS TO DEGREE COMPLETION</b>				<b>128-133</b>	<b>PLUS ELEVEN (11) HOURS of Clinical Experiences to include:</b>	
				CED 100	Clinical I: Intro to the Education Prof. (0)	
				CED 200	Clinical II: Understanding the Learner (0)	
				CED 300	Clinical III: curriculum and Instruct. Des. (0.5)	
				CED 400	Clinical IV: Diagnosis & Perception (0.5)	
				CED 450	Clinical V: Practicing Teaching (1) (fall only)	
				CED 499	Supervised Student Teaching P-12 (9)	

\* PREREQUISITES: Consult with your advisor and/or the University catalog regarding prerequisites for upper division BIO courses. CHE 111/111L, 112/112L, 361, and/or 366; MAT 112 or higher.  
 ☉ Student must have completed 30 hours by the end of the second semester and apply for admission to Professional Education Program.  
 § In order to take more than 18 hours per semester, you must seek approval from the Office of the Associate Dean in Roark 106.  
 ☉ Must be completed before enrolling in CED 300 and applying to the Teacher Ed. program.

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

**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.)