

**CURRICULUM GUIDE**  
**Biology, B.S. (Teaching Concentration)**  
**2019-2020**

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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	
<b>Freshman Year</b>	SCO 100B	1	EDF 203	3
	BIO 111	4	CED 100	0
	☉ CHE 111 (fulfills Gen. Ed. 4)	3	☉ SED 104 (fulfills Gen. Ed. 6)	3
	CHE 111L	1	BIO 112	4
	☉ ☉ † MAT Requirement (fulfills Gen. Ed. 2)	3-5	CHE 112	3
	☉ Gen. Ed. 1A (ENG 101)	3	CHE 112L	1
		☉ Gen. Ed. 1B (ENG 102)	3	
	<b>TOTAL</b>	<b>15-17</b>	<b>TOTAL</b>	<b>17</b>
<b>Sophomore Year</b>	BIO 319	4	EDF 219	3
	CHE 361	3	CED 200	0
	CHE 361L	1	BIO 318	4
	☉ Gen. Ed. 1C (Oral Comm.)	3	CHE 362	3
	Gen. Ed. 3B (Humanities) (PHI 110, 130, 300, or 320 recommended)	3	CHE 362L	1
	Gen. Ed. 5B (Soc. & Behav. Sci.)	3	Gen. Ed. 3A (Arts)	3
			Gen. Ed. 5A (History)	3
	❖ 30 hrs complete + apply to professional education program			
<b>TOTAL</b>	<b>17</b>	<b>TOTAL</b>	<b>17</b>	
<b>Junior Year</b>	EDC 300	3	EDF 413	3
	EDF 204	2	EMS 490 (spring only)	3
	CED 300	0.5	CED 400	0.5
	EMS 300W	3	BIO 320 (ACCT)	4
	BIO 315	4	BIO 348	4
	☉ PHY 131 <u>or</u> 201 (fulfills Gen. Ed. 4)	5	§ PHY 132, 202 <u>or</u> GLY 108	3-5
	<b>TOTAL</b>	<b>17.5</b>	<b>TOTAL</b>	<b>17.5-19.5<sup>§</sup></b>
<b>Senior Year</b>	ESE 561	3	CED 499	9
	CED 450 (fall only)	1	EMS 474	3
	BIO 316	4		
	BIO 495	1		
	STA 215 <u>or</u> 270	3-4		
	Gen. Ed. 6 (Diversity)	3		
<b>APPLY FOR STUDENT TEACHING</b>				
<b>TOTAL</b>	<b>15-16</b>	<b>TOTAL</b>	<b>12</b>	
<b>TOTAL HOURS TO DEGREE COMPLETION</b>		<b>128-133</b>		

Course Number	Course Name
<b>GENERAL EDUCATION &amp; UNIVERSITY REQUIREMENTS (37)</b>	
SCO 100B	Student Success Seminar for Biology (1)
<b>CORE COURSE REQUIREMENTS (29)</b>	
BIO 111	Cell and Molecular Biology (4)
BIO 112	Ecology and Evolution(4)
BIO 315	Genetics (4)
BIO 316	Ecology (4)
BIO 318	Botany (4)
BIO 319	Zoology (4)
BIO 320	Principles of Microbiology (4)
BIO 495	Evolution Theory and Application (1)
<b>BIOLOGY TEACHING CONCENTRATION REQUIREMENTS (3)</b>	
BIO 348	Animal Physiology (3)
<b>SUPPORTING COURSE REQUIREMENTS (21-26)</b>	
☉ 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)
☉* CHE 362	Organic Chemistry II (3)
☉* CHE 362L	Organic Chemistry Lab II (1)
☉ PHY 131 <u>or</u>	College Physics I (5)
☉ PHY 201	University Physics I (5)
PHY 132 <u>or</u>	College Physics II (5)
PHY 202 <u>or</u>	University Physics II (5)
GLY 108	Plate Tectonics: The Active Earth (3)
☉ STA 215 <u>or</u>	Intro. to Statistical Reasoning (3)
☉* STA 270	Applied Statistics I (4)
† PLUS ONE (1) MATHEMATICS COURSE SELECTED FROM (any of which can count towards General Education, Element 2):	
☉* MAT 120	Trigonometry (3)
☉* MAT 122	PreCalculus Mathematics (5)
☉* MAT 211	Applied Calculus (3)
☉* MAT 234	Calculus I (4)
Bracketed items must be taken concurrently.	
<b>PROFESSIONAL EDUCATION REQUIREMENTS (37)</b>	
EDC 300	Differentiation Inclusive Classrooms (3)
EDF 203	Philosophical & Historical Found. of Ed. (3)
EDF 204	Emerging Instructional Technologies (2)
EDF 219	Human Development and Learning (3)
EDF 413	Assessment in Education (3)
EMS 300W	Curriculum & Instructional Design (3)
EMS 474	Teaching Content Reading (3)
EMS 490	Classroom & Behavior Management in P-12 (3) (spring only)
ESE 561	Teaching Science in the Secondary Schools (3)
☉ SED 104	Introduction to Special Education (3)
<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.)