

**CURRICULUM GUIDE**  
**Biology, B.S. (Aquatic Biology Concentration)**  
**2018-2019**

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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	BIO 112	4
	BIO 111	4	CHE 112	3
	<sup>6</sup> CHE 111 (fulfills Gen. Ed. 4)	3	CHE 112L	1
	CHE 111L	1	<sup>6</sup> MAT 234 <i>or</i> 211 (fulfills Gen. Ed. 2)	3-4
	Gen. Ed. 1A (ENG 101)	3	Gen. Ed. 1B (ENG 102)	3
	Gen. Ed. 3A (Arts)	3		
	<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>14-15</b>
<b>Sophomore Year</b>	BIO 319	4	BIO 318	4
	CHE 361	3	BIO 316	4
	CHE 361L	1	Gen. Ed. 1C (Oral Comm.)	3
	STA 215 <i>or</i> 270	3-4	Gen. Ed. 3B (Humanities)	3
	Free Elective	3	Free Elective	0-1
	<b>TOTAL</b>	<b>14-15</b>	<b>TOTAL</b>	<b>14-15</b>
<b>Junior Year</b>	BIO 315	4	BIO 320 (ACCT)	4
	<sup>6</sup> PHY 131 <i>or</i> 201 (fulfills Gen. Ed. 4)	5	Gen. Ed. 5B (Soc. & Behav. Sci.)	3
	Gen. Ed. 5A (History)	3	Free Elective	3
	Free Elective	3	Free Elective	3
	<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>16</b>
	<b>Senior Year</b>	BIO 495	1	BIO 525
BIO 542		3	BIO 558	3
BIO 557		3	† BIO 556, 561, <i>or</i> GLY 315	3
Gen. Ed. 6 (Diversity)		3	Gen. Ed. 6 (Diversity)	3
Free Elective		3	Free Elective (upper division)	3
Free Elective		2-3		
<b>TOTAL</b>		<b>15-16</b>	<b>TOTAL</b>	<b>15</b>
<b>TOTAL HOURS TO DEGREE COMPLETION</b>		<b>120</b>		

\* **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 114 or higher.

**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
<b>GENERAL EDUCATION &amp; UNIVERSITY REQUIREMENTS (37)</b>	
SCO 100B	Student Success Seminar in 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>AQUATIC BIOLOGY CONCENTRATION REQUIREMENTS (15)</b>	
BIO 525	Aquatic and Wetland Plants (3)
BIO 542	Freshwater Invertebrates (3)
BIO 557	Ichthyology (3)
BIO 558	Freshwater Ecology (3)
† PLUS THREE (3) HOURS selected from:	
BIO 556	Herpetology (3)
BIO 561	Fisheries Biology (3)
GLY 315	Hydrology (3)
<b>SUPPORTING COURSE REQUIREMENTS (14-16)</b>	
<sup>6</sup> 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)
<sup>6</sup> * MAT 234 <i>or</i>	Calculus I (4)
<sup>6</sup> * MAT 211	Applied Calculus (3)
<sup>6</sup> * 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)
Bracketed items must be taken concurrently.	
<b>FREE ELECTIVES (23-25)</b>	

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