



This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
<b>Semester One: [16 Credit Hours]</b>					
<b>Note: Students not placed into MATH 12002 (required in semester 3) should take MATH 11010 (Kent Core course) in first year of study</b>					
<b>BSCI 10110 Biological Diversity</b>	4			■	<b>Fulfills Kent Core Basic Sciences</b>
<b>CHEM 10060 General Chemistry I</b>	4			■	<b>Fulfills Kent Core Basic Sciences; courses must be taken together</b>
<b>CHEM 10062 General Chemistry I Laboratory</b>	1			■	
US 10097 Destination Kent State: First Year Experience	1				Not required of transfer students with 25 hours
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
<b>Semester Two: [15 Credit Hours]</b>					
<b>BSCI 10120 Biological Foundations</b>	4			■	<b>Fulfills Kent Core Additional</b>
<b>CHEM 10061 General Chemistry II</b>	4			■	<b>Fulfills Kent Core Additional</b>
<b>CHEM 10063 General Chemistry II Laboratory</b>	1			■	<b>Fulfills Kent Core Basic Sciences</b>
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
<b>Semester Three: [16-17 Credit Hours]</b>					
<b>CHEM 20481 Basic Organic Chemistry I (4) or CHEM 30481 Organic Chemistry I (3)</b>	3-4			■	
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
Kent Core Requirement	3				
Botany Core Course	4	■		■	See note 2 on page 2
<b>Semester Four: [14-15 Credit Hours]</b>					
<b>BSCI 30156 Elements of Genetics</b>	3	■		■	
<b>CHEM 20482 Basic Organic Chemistry II (2) or CHEM 30475 Organic Chemistry Laboratory I (1) or CHEM 30482 Organic Chemistry II (3)</b>	1-3			■	
Botany Core Course	4	■		■	See note 2 on page 2
BSCI or CHEM or PHY Elective	3	■		■	See note 3 on page 2
General Elective	3				
<b>Semester Five: [16 Credit Hours]</b>					
<b>MATH 12002 Analytic Geometry and Calculus I</b>	5			■	<b>Fulfills Kent Core Mathematics and Critical Reasoning</b>
Foreign Language (Elementary I)	4-5				Fulfills College General Requirement
Botany Core Course	4	■		■	See note 2 on page 2
BSCI or CHEM or PHY Elective	3	■		■	See note 3 on page 2
<b>Semester Six: [16-19 Credit Hours]</b>					
<b>MATH 12003 Analytic Geometry and Calculus II or MATH 30011 Basic Probability and Statistics</b>	3-5			■	
Foreign Language (Elementary II)	4-5				Fulfills College General Requirement
BSCI and/or CHEM and/or PHY Electives (at least 1 credit hour must be upper division)	9			■	See note 3 on page 2
<b>Semester Seven: [15 Credit Hours]</b>					
<b>BSCI 40163 Evolution</b>	3	■		■	
<b>BSCI 40600 Writing in the Biological Sciences</b>	1	■	C	■	<b>Fulfills writing-intensive course requirement</b>
BSCI and/or CHEM and/or PHY Electives	8			■	See note 3 on page 2
General Elective (upper division)	3	■			
<b>Semester Eight: [13 Credit Hours]</b>					
BSCI or CHEM or PHY Elective (upper division)	3	■		■	See note 3 on page 2
General Electives (upper division)	10	■			credits required depends on meeting minimum 121 credit hours and minimum 42 upper-division credit hours



### Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Global / Domestic Diversity Course	Writing-Intensive	Experiential Learning	Minimum Major GPA	Minimum Overall GPA
121	42	36	Kent Core or General Electives	BSCI 40060	Visit <a href="http://www.kent.edu/catalog/elr">www.kent.edu/catalog/elr</a>	2.000	2.000

### Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
<b>Composition (6-8 credit hours)</b> <i>ENG 11002, 11011, 21011; HONR 10197, 10297</i>	Enrollment based on placement test	6-8
<b>Mathematics and Critical Reasoning (3-5 credit hours)</b>	Fulfilled in this major with MATH 12002	0
<b>Humanities and Fine Arts (9 credit hours)</b> <i>Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts</i>	May fulfill diversity requirement	9
<b>Social Sciences (6 credit hours)</b> <i>Must be selected from two curricular areas</i>	May fulfill diversity requirement	6
<b>Basic Sciences (6-7 credit hours)</b> <i>Must include one laboratory</i>	Fulfilled in this major with BSCI 10110, CHEM 10060, CHEM 10062	0
<b>Additional (6 credit hours)</b>	Fulfilled in this major with BSCI 10120 and CHEM 10061; may fulfill diversity requirement	0

**Note 1:** CHEM 20482 or 30482 may be substituted with CHEM 30284 Introductory Biological Chemistry with faculty advisor approval.

**Note 2:** **Botany core courses** (12 credit hours), choose from the following:

BSCI 30267 Plant Physiology	4	BSCI 40164 Molecular Systematics and Phylogenetics	4
BSCI 30274 Forestry	3	BSCI 40272 Plant Anatomy	4
BSCI 30275 Local Flora	4	BSCI 40277 Morphology of Lower Plants	4
BSCI 30277 Economic Botany	2		

**Note 3:** **BSCI and/or CHEM and/or PHY electives** (26 credit hours\*), choose from the following:

BSCI courses** (in consultation with advisor)	11-26	PHY 13001 General College Physics I (4) <sup>K</sup> <b>and</b> PHY 13021 General College Physics Laboratory I (1) <b>OR</b> PHY 23101 General University Physics I (5)	5
CHEM 20482 Basic Organic Chemistry II (2) <b>or</b> CHEM 30482 Organic Chemistry II (3)	2-3		
CHEM 30475 Organic Chemistry Laboratory I	1	PHY 13002 General College Physics II (4) <b>and</b> PHY 13022 General College Physics Laboratory II (1) <b>OR</b> PHY 23102 General University Physics II (5)	5
CHEM 30476 Organic Chemistry Laboratory II	1		

\*Maximum 4 credit hours of these courses may be satisfactory/unsatisfactory (S/U) graded.

K-Fulfills Kent Core Additional

**\*\*Must choose one of the following:**

*Maximum 6 credit hours of any combination of the following may be used to fulfilling this elective. No more than 4 credit hours may be S/U graded. (enrollment in these courses must be determined with a faculty advisor):*

BSCI 30005 Career Pathways in Biology	1	BSCI 40192 Internship in Biological Sciences [ELR]	3-6
BSCI 40099 Senior Honors Thesis [ELR]	1-3	BSCI 40196 Individual Investigation [ELR]	1-3
BSCI 40191 Senior Seminar	1		

ELR fulfills experiential learning requirement

**Note:** All courses taken from the list of major program requirements are used in the calculation of the major GPA.

**The following Biological Sciences (BSCI) courses may not be used in the elective category for majors or the minor in the Department of Biological Sciences:**

10001 Human Biology	11010 Anatomy and Physiology I for Allied Health	26002 Ecological Principles of Pest Mgmt
10002 Life on Planet Earth	11020 Anatomy and Physiology II for Allied Health	26003 Plant Identification and Selection I
10003 Laboratory Experience in Biology	16001 Horticultural Botany	26004 Plant Identification and Selection II
10100 Anatomy for Veterinary Technicians	20020 Biological Structure and Function	30050 Human Genetics
11001 Anatomy for Physical and Occupational Therapy	20021 Basic Microbiology	40020 Biology of Aging
	20022 Basic Microbiology Lab	

### Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade. Visit [www.kent.edu/catalog/kent-core](http://www.kent.edu/catalog/kent-core) for course list.

### Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit [www.kent.edu/catalog/diversity](http://www.kent.edu/catalog/diversity) for course list.



**Writing-Intensive Course Requirement**

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.000) grade. Visit [www.kent.edu/catalog/wic](http://www.kent.edu/catalog/wic) for course list.

**Experiential Learning Requirement (ELR)**

To provide students with direct engagement in learning experiences that promote academic relevance, meaning and an understanding of real-world issues, students must complete this requirement at Kent State, either as a for-credit course or as a non-credit, non-course experience approved by the appropriate faculty member. Visit [www.kent.edu/catalog/elr](http://www.kent.edu/catalog/elr) for course list.

**Upper-Division Requirement**

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.

**Foreign Language**

Visit [www.kent.edu/catalog/foreign-languages](http://www.kent.edu/catalog/foreign-languages) for course list.

