

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>Students not placed into MATH 12002 (required in semester 3) should take MATH 11010 or 12022 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 credits
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: [15 Credit Hours]</b>					
<b>BSCI 30360 General Ecology</b>	4	■		■	<b>Offered in fall semesters only</b>
<b>MATH 12002 Analytic Geometry and Calculus I</b>	5			■	<b>Fulfills Kent Core Mathematics and Critical Reasoning</b>
Concentration Sequence Elective	3			■	See note 4 on page 3
Kent Core Requirement	3				See Kent Core Summary on page 2
<b>Semester Four: [14 Credit Hours]</b>					
<b>BSCI 30156 Elements of Genetics</b>	3	■		■	
GEOG 49070 Geographical Information Science	3	■		■	
Concentration Sequence Elective	3	■		■	See note 4 on page 3
Kent Core Requirement	3				See Kent Core Summary on page 2
General Elective	2				
<b>Semester Five: [15 Credit Hours]</b>					
<b>BSCI 40375 Environmental Biology and Management</b>	4	■		■	
GEOL 11040 Earth Dynamics	3			■	Courses must be taken together; fulfills Kent Core Basic Sciences
GEOL 11041 Earth Dynamics Laboratory	1			■	
GEOG 39002 Statistical Methods in Geography or GEOL 42035 Scientific Methods in Geology	3	■		■	
Foreign Language (Elementary I)	4-5				Fulfills College General Requirement
<b>Semester Six: [15 Credit Hours]</b>					
<b>BSCI 40600 Writing in Biological Sciences</b>	1	■	C	■	Fulfills writing-intensive course requirement
Foreign Language (Elementary II)	4-5				Fulfills College General Requirement
Geography Elective	3	■		■	See note 1 on page 2
Kent Core Requirement	3				See Kent Core Summary below
Environmental Policy and Management Concentration Electives	4	■		■	See note 3 on page 2
<b>Semester Seven: [15-16 Credit Hours]</b>					
<b>BSCI 40163 Evolution</b>	3	■		■	
Geography Elective	3	■		■	See note 1 on page 2
Geology Elective	3-4	■		■	See note 2 on page 2
Environmental Policy and Management Concentration Electives (at least 1 credit hour must be upper division)	6			■	See note 3 on page 2

**Critical requirements are boldface in shaded areas**

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
<b>Semester Eight: [16-17 Credit Hours]</b>					
Geology Elective	3-4	■		■	See note 1 below
Environmental Policy and Management Concentration Electives	6	■		■	See note 3 below
General Elective (lower or upper division)	7				Number of 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 Visit	Minimum Major GPA	Minimum Overall GPA
121	42	36	Kent Core	BSCI 40600	<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 BCSI 10110, CHEM 10060, CHEM 10062	0
<b>Additional (6 credit hours)</b>	Fulfilled in this major with BCSI 10120 and CHEM 10061	0

**Note 1: Geography electives (6 credit hours), choose from the following:**

GEOG 31062 Fundamentals of Meteorology	3	GEOG 41074 Resource Geography	3
GEOG 31064 Principles of Climatology	3	GEOG 41082 Geography of Soils	3
GEOG 41052 Glaciers and Glaciation	3	GEOG 49080 Advanced Geographic Information Science	3
GEOG 41066 Climate Change and Its Impact	3	GEOG 49230 Remote Sensing	3
GEOG 41073 Conservation of Natural Resources	3	GEOG upper-division course with advisor approval	3

**Note 2: Geology electives (6-8 credit hours), choose from the following:**

GEOL 32066 Geomorphology	4	GEOL 42078 Engineering Geology	4
GEOL 41077 Geology of the National Parks	3	GEOL 43042 Environmental Geochemistry	3
GEOL 42067 Introductory Hydrogeology	3	GEOL 43044 Environmental Isotopes	3
GEOL 42069 Hydrogeochemistry	3	GEOL 44074 Paleooceanography	3
GEOL 42074 Environmental Core and Well Logging	3	GEOL upper-division course with advisor approval	3-4

**Note 3: Environmental Policy and Management Concentration electives (16 credit hours), choose from the following\*:**

BSCI upper-division courses**	10-15	Must include one but no more than 6 credit hours:	
CHEM 20481 Basic Organic Chemistry I ***	4	BSCI 30005 Career Pathways in Biology	1
CHEM 20482 Basic Organic Chemistry II ***	2	BSCI 40099 Senior Honors Thesis [ELR]	1-6
CHEM 30475 Organic Chemistry Laboratory I ***	1	BSCI 40191 Senior Seminar	6
		BSCI 40192 Internship in Biological Sciences [ELR]	3-6
		BSCI 40196 Individual Investigation [ELR]	1-6

ELR fulfills experiential learning requirement

\*No more than 4 credit hours may be S/U graded.

\*\*Select any combination of upper-division BSCI courses other than those used to meet the Environmental and Conservation Biology core and Conservation Biology concentration requirements as listed above. Suggested BSCI courses include: 30274, 30275, 30277, 30361, 30361, 30362, 30370, 30560, 30580, 30582, 40160, 40162, 40170, 40360, 40272, 40275, 40375, 40376, 40515, 40556. Students should consult with the advisor to determine the most appropriate courses given their disciplinary interests and career aspirations.

\*\*\* Recommended for students continuing onto a graduate program.

**Note 4: Concentration electives (6 credit hours) choose a sequence from the following:**

Sequence 1		Sequence 3	
ECON 22060 Principles of Microeconomics	3	RPTM 26081 Principles of Outdoor Recreation and	3
ECON 32084 Economics of the Environment	3	RPTM 36082 Interpretation of Natural and Cultural Resources or	3
Sequence 2		RPTM 36083 Environmental Education and Conservation	3
POL 10300 Public Policy	3		
POL 40440 U.S. Environmental Politics and Policy	3		

**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.

