

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

| Critical | Course Subject and Title | Credit Hours | Min. Grade | Major GPA | Attribute | Notes |
|--|---|--------------|----------------|-----------|-----------|-------|
| Semester One [16 Credits] | | | | | | |
| Note: Students not placed into MATH 12002 (required in semester 3) should take MATH 11010 (Kent Core course) in first year of study | | | | | | |
| ! | BSCI 10110 Biological Diversity | 4 | | ■ | KBS | |
| ! | CHEM 10060 General Chemistry I | 4 | | ■ | KBS | |
| ! | CHEM 10062 General Chemistry I Laboratory | 1 | | ■ | KBS | |
| | PSYC 11762 General Psychology | 3 | | ■ | DD/KSS | |
| | UC 10097 Destination Kent State: First Year Experience ¹ | 1 | | | | |
| | Kent Core Requirement | 3 | | | | |
| Semester Two [15 Credits] | | | | | | |
| ! | BSCI 10120 Biological Foundations | 4 | | ■ | KBS | |
| ! | CHEM 10061 General Chemistry II | 4 | | ■ | KBS | |
| ! | CHEM 10063 General Chemistry II Laboratory | 1 | | ■ | KBS | |
| | SOC 12050 Introduction to Sociology | 3 | | ■ | DD/KSS | |
| | Kent Core Requirement | 3 | | | | |
| Semester Three [16 Credits] | | | | | | |
| ! | BSCI 30140 Cell Biology | 4 | | ■ | | |
| ! | MATH 12002 Analytic Geometry and Calculus I | 5 | | ■ | KMC | |
| | CHEM 20481 Basic Organic Chemistry I (4) or CHEM 30481 Organic Chemistry I (3) | 3-4 | | ■ | | |
| | CHEM 30475 Organic Chemistry Laboratory I | 1 | | ■ | ELR | |
| | Kent Core Requirement | 3 | | | | |
| Semester Four [14 Credits] | | | | | | |
| ! | BSCI 30105 Career Pathways in Biology | 1 | | ■ | | |
| ! | BSCI 30156 Elements of Genetics | 3 | | ■ | | |
| | BSCI 40600 Writing in the Biological Sciences | 1 | C ² | ■ | WIC | |
| | CHEM 20482 Basic Organic Chemistry II (2) ³ or CHEM 30482 Organic Chemistry II (3) ³ | 2-3 | | ■ | | |
| | CHEM 30476 Organic Chemistry Laboratory II | 1 | | ■ | | |
| | MATH 12003 Analytic Geometry and Calculus II (5) or MATH 30011 Basic Probability and Statistics (3) | 3-5 | | ■ | | |
| | Kent Core Requirement | 3 | | | | |
| Semester Five [15 Credits] | | | | | | |
| ! | BSCI 30130 Human Physiology (3) or BSCI 40430 Animal Physiology (3) | 3 | | ■ | | |
| | Biology Electives ⁴ | 4 | | ■ | | |
| | Physics Series ⁵ | 5 | | ■ | | |
| | Kent Core Requirement | 3 | | | | |
| Semester Six [16 Credits] | | | | | | |
| Note: Pre-med students should take the MCAT if applying to medical school summer or fall of the senior year (consult with advisor) | | | | | | |
| ! | BSCI 30171 General Microbiology | 4 | | ■ | | |
| | CHEM 30284 Introductory Biological Chemistry (4) or CHEM 40245 Biochemical Foundations of Medicine (4) | 4 | | ■ | | |
| | Biology Electives ⁴ | 3 | | ■ | | |
| | Physics Series ⁵ | 5 | | ■ | | |
| Semester Seven [14 Credits] | | | | | | |
| | BSCI 40163 Evolution | 3 | | ■ | | |
| | Biology Electives ⁴ | 3 | | ■ | | |
| | Foreign Language ⁶ | 4-5 | | | | |
| | General Electives ⁷ | 4 | | | | |
| Semester Eight [14 Credits] | | | | | | |
| | Biology Electives ⁴ | 4 | | ■ | | |
| | Foreign Language ⁶ | 4-5 | | | | |
| | General Electives ⁷ | 6 | | | | |

Graduation Requirements Summary

| Minimum Total Hours | Minimum Upper-Division Hours 30000 – 40000 level course | Minimum Kent Core Hours | Minimum | |
|---------------------|--|-------------------------|-----------|-------------|
| | | | Major GPA | Overall GPA |
| 120 | 42 | 36 | 2.000 | 2.000 |

1. UC 10097 is not required of transfer students with 25 credits (excluding College Credit Plus) or students age 21+ at time of admission.
2. A minimum C (2.000) grade must be earned to fulfill the writing-intensive requirement.
3. Students must stay within a single organic chemistry series. CHEM 20482 is required if CHEM 20481 is selected in the major core; CHEM 30482 is required if CHEM 30481 is selected in the major core.

4. Biology Electives (14 credits). Highly recommended courses: BSCI 30518 Vertebrate Anatomy, BSCI 40174 Immunology, BSCI 40517 Medical Histology, BSCI 40433 Mammalian Physiology I and BSCI 40434 Mammalian Physiology II. Students may take the following (maximum 6 credits total, maximum 4 credits S/U graded) for biology electives, but not required to do so.

| | |
|--|---|
| BSCI 40199 Senior Honors Thesis (1-10) (ELR) | BSCI 40192 Internship in Biological Sciences (3-12) (ELR) |
| BSCI 40191 Senior Seminar (1) | BSCI 40196 Individual Investigation (1-3) (ELR) |

5. Physics Series (10 credits)

| Choose either 130xx or 231xx series: | |
|---|---|
| PHY 13001 General College Physics I (4) (KBS) | PHY 23101 General University Physics I (5) (KBS) |
| PHY 13002 General College Physics II (4) (KBS) | PHY 23102 General University Physics II (5) (KBS) |
| PHY 13021 General College Physics Laboratory I (1) (KBS) | |
| PHY 13022 General College Physics Laboratory II (1) (KBS) | |

6. Fulfills College General Requirement
7. Number of general elective credits required depends on meeting minimum 120 credit hours and minimum 42 upper-division credit hours.

The following courses may **NOT** be used in the elective category for majors or minors in the Department of Biological Sciences:

| | |
|--|---|
| BSCI 10001 Human Biology | BSCI 10002 Life on Planet Earth |
| BSCI 10003 Laboratory Experience in Biology | BSCI 10005 Anatomy for Veterinary Technicians |
| BSCI 11001 Anatomy for Physical and Occupational Therapy | BSCI 11010 Foundational Anatomy and Physiology I |
| BSCI 11020 Foundational Anatomy and Physiology II | BSCI 16001 Horticultural Botany |
| BSCI 20019 Biological Structure and Function | BSCI 20021 Basic Microbiology |
| BSCI 20022 Basic Microbiology Laboratory | BSCI 21010 Anatomy and Physiology I |
| BSCI 21020 Anatomy and Physiology II | BSCI 26002 Ecological Principles of Pest Management |
| BSCI 26003 Plant Identification and Selection I | BSCI 26004 Plant Identification and Selection II |
| BSCI 30050 Human Genetics | BSCI 40020 Biology of Aging |

University Requirements: Bachelor's degree-seeking students must meet Kent Core (general education requirements), diversity, writing-intensive and experiential learning requirements. For more information about these requirements, please read the following sections in the University Catalog: Kent Core – www.kent.edu/catalog/kent-core; Diversity Course Requirement – www.kent.edu/catalog/diversity; Writing-Intensive Course Requirement – www.kent.edu/catalog/wic; Experiential Learning Requirement – www.kent.edu/catalog/elr.

Attribute Legend: **DD** Diversity–Domestic; **DG** Diversity–Global; **ELR** Experiential Learning; **KAD** Kent Core Additional; **KBS** Kent Core Basic Sciences; **KCM** Kent Core Composition; **KFA** Kent Core Fine Arts; **KHU** Kent Core Humanities; **KMC** Kent Core Mathematics and Critical Reasoning; **KSS** Kent Core Social Sciences; **WIC** Writing Intensive