ZOOOLOGY - B.S.

College of Arts and Sciences
Department of Biological Sciences
www.kent.edu/biology

About This Program
The Bachelor of Science in Zoology program explores the diversity of animal life and supports understanding of the behavior, ecology and physiology of animals. You’ll also have the opportunity to participate in internships and research opportunities, allowing you to gain practical experience in the field. Whether you’re interested in pursuing a career in wildlife conservation, veterinary medicine or research, this program provides you with the tools and knowledge needed to succeed. Read more...

Contact Information
• Program Coordinator: Edgar Kooijman | ekooijma@kent.edu | 330-672-8568
• Speak with an Advisor
• Chat with an Admissions Counselor

Program Delivery
• Delivery:
  • In person
• Location:
  • Kent Campus

Examples of Possible Careers and Salaries*

Biological science teachers, postsecondary
• 9.3% much faster than the average
• 64,700 number of jobs
• $85,600 potential earnings

Biological technicians
• 4.9% about as fast as the average
• 87,500 number of jobs
• $46,340 potential earnings

Natural sciences managers
• 4.8% about as fast as the average
• 71,400 number of jobs
• $137,940 potential earnings

Zoologists and wildlife biologists
• 3.9% about as fast as the average
• 21,000 number of jobs
• $66,350 potential earnings

* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics’ Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

Admission Requirements
The university affirmatively strives to provide educational opportunities and access to students with varied backgrounds, those with special talents and adult students who graduated from high school three or more years ago.

First-Year Students on the Kent Campus: First-year admission policy on the Kent Campus is selective. Admission decisions are based upon cumulative grade point average, strength of high school college preparatory curriculum and grade trends. Students not admissible to the Kent Campus may be administratively referred to one of the seven regional campuses to begin their college coursework. For more information, visit the admissions website for first-year students.

First-Year Students on the Regional Campuses: First-year admission to Kent State’s campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, as well as the Twinsburg Academic Center, is open to anyone with a high school diploma or its equivalent. For more information on admissions, contact the Regional Campuses admissions offices.

International Students: All international students must provide proof of English language proficiency unless they meet specific exceptions. For more information, visit the admissions website for international students.

Transfer Students: Students who have attended any other educational institution after graduating from high school must apply as undergraduate transfer students. For more information, visit the admissions website for transfer students.

Former Students: Former Kent State students or graduates who have not attended another college or university since Kent State may complete the reenrollment or reinstatement form on the University Registrar’s website.

Admission policies for undergraduate students may be found in the University Catalog.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSCI 10110</td>
<td>BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB)</td>
<td>4</td>
</tr>
<tr>
<td>BSCI 10120</td>
<td>BIOLOGICAL FOUNDATIONS (ELR) (KBS) (KLAB)</td>
<td>4</td>
</tr>
<tr>
<td>BSCI 30156</td>
<td>ELEMENTS OF GENETICS</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 40163</td>
<td>EVOLUTION</td>
<td>3</td>
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<tr>
<td>BSCI 40600</td>
<td>WRITING IN THE BIOLOGICAL SCIENCES (WIC)</td>
<td>1</td>
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<tr>
<td>CHEM 10060</td>
<td>GENERAL CHEMISTRY I (KBS)</td>
<td>4</td>
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<tr>
<td>CHEM 10061</td>
<td>GENERAL CHEMISTRY II (KBS)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 10062</td>
<td>GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB)</td>
<td>1</td>
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<tr>
<td>CHEM 10063</td>
<td>GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)</td>
<td>1</td>
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<tr>
<td>CHEM 20481 or CHEM 30481</td>
<td>BASIC ORGANIC CHEMISTRY I</td>
<td>3-4</td>
</tr>
<tr>
<td>CHEM 20482 or CHEM 30475 or CHEM 30482</td>
<td>ORGANIC CHEMISTRY I (ELR) or ORGANIC CHEMISTRY II</td>
<td>1-3</td>
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Graduation Requirements

Minimum Major GPA: 2.000
Minimum Overall GPA: 2.000

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>BSCI 10001</td>
<td>HUMAN BIOLOGY (KBS)</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 10002</td>
<td>LIFE ON PLANET EARTH (KBS)</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 10003</td>
<td>LABORATORY EXPERIENCE IN BIOLOGY (KBS) (KLAB)</td>
<td>1</td>
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<tr>
<td>BSCI 10005</td>
<td>ANATOMY FOR VETERINARY TECHNICIANS</td>
<td>5</td>
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<tr>
<td>BSCI 11010</td>
<td>FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 11020</td>
<td>FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 16001</td>
<td>HORTICULTURAL BOTANY</td>
<td>3</td>
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<tr>
<td>BSCI 20019</td>
<td>BIOLOGICAL STRUCTURE AND FUNCTION</td>
<td>4</td>
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<tr>
<td>BSCI 20021</td>
<td>BASIC MICROBIOLOGY</td>
<td>3</td>
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<td>BSCI 20022</td>
<td>BASIC MICROBIOLOGY LABORATORY</td>
<td>1</td>
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<tr>
<td>BSCI 21010</td>
<td>ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)</td>
<td>4</td>
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<tr>
<td>BSCI 21020</td>
<td>ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)</td>
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<tr>
<td>BSCI 26002</td>
<td>ECOLOGICAL PRINCIPLES OF PEST MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 26003</td>
<td>PLANT IDENTIFICATION AND SELECTION I</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 26004</td>
<td>PLANT IDENTIFICATION AND SELECTION II</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 30050</td>
<td>HUMAN GENETICS</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 40020</td>
<td>BIOLOGY OF AGING</td>
<td>3</td>
</tr>
</tbody>
</table>

Foreign Language College Requirement, B.S.

- Students pursuing the Bachelor of Science degree in the College of Arts and Sciences must complete 8 credit hours of foreign language.
- The Bachelor of Science in Medical Laboratory Science is exempt from this requirement.
- Minimum Elementary I and II of the same language

1 All students with prior foreign language experience should take the foreign language placement test to determine the appropriate level at which to start. Some students may start beyond the Elementary I level and will complete the requirement with fewer credit hours and fewer courses. This may be accomplished by (1) passing a course beyond Elementary I through Intermediate II level; (2) receiving credit through one of the alternative credit programs offered by Kent State University; or (3) demonstrating language proficiency comparable to Elementary II of a foreign language. When students complete the requirement with fewer than 8 credit hours and two courses, they will complete remaining credit hours with general electives.

2 The Bachelor of Science in Medical Laboratory Science exemption exists under another college policy (Three-Plus-One Programs).

Roadmap

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

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Credits</th>
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<tbody>
<tr>
<td>! BSCI 10110</td>
<td>BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB)</td>
</tr>
<tr>
<td>! CHEM 10600</td>
<td>GENERAL CHEMISTRY I (KBS)</td>
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</table>
CHEM 10062  GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB) 1
UC 10001  FLASHERS 101 1
Kent Core Requirement 3
Kent Core Requirement 3

Credit Hours 16

Semester Two

! BSCI 10120  BIOLOGICAL FOUNDATIONS (ELR) (KBS) (KLAB) 4
! CHEM 10061  GENERAL CHEMISTRY II (KBS) 4
! CHEM 10063  GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB) 1
Kent Core Requirement 3
Kent Core Requirement 3

Credit Hours 15

Semester Three

! BSCI 30156  ELEMENTS OF GENETICS 3
! CHEM 20481  or  CHEM 30481  BASIC ORGANIC CHEMISTRY I or ORGANIC CHEMISTRY I 3-4
CHEM 20482  or  CHEM 30475  or  CHEM 30482  BASIC ORGANIC CHEMISTRY II or ORGANIC CHEMISTRY II LABORATORY I or ORGANIC CHEMISTRY II 0-3
! MATH 12002  ANALYTIC GEOMETRY AND CALCULUS I (KMCR) 5
Kent Core Requirement 3

Credit Hours 15

Semester Four

CHEM 20482  or  CHEM 30475  or  CHEM 30482  BASIC ORGANIC CHEMISTRY II or ORGANIC CHEMISTRY II LABORATORY I or ORGANIC CHEMISTRY II 0-3
! MATH 12003  or  MATH 30011  ANALYTIC GEOMETRY AND CALCULUS II or BASIC PROBABILITY AND STATISTICS 3-5
Zoology Core Electives 7
Kent Core Requirement 3

Credit Hours 13

Semester Five

BSCI 40600  WRITING IN THE BIOLOGICAL SCIENCES (WIC) 1
Biological, Chemistry, Physics Electives 7
Zoology Core Electives 4
Foreign Language 4

Credit Hours 16

Semester Six

Biological, Chemistry, Physics Electives 9
Foreign Language 4
Kent Core Requirement 3

Credit Hours 16

Semester Seven

BSCI 40163  EVOLUTION 3
Biological, Chemistry, Physics Electives 7
General Elective 3

Credit Hours 13

Semester Eight

Biological, Chemistry, Physics Elective 3

Credit Hours 13

General Electives 13

Credit Hours 16

Minimum Total Credit Hours: 120

University Requirements

All students in a bachelor's degree program at Kent State University must complete the following university requirements for graduation.

NOTE: University requirements may be fulfilled in this program by specific course requirements. Please see Program Requirements for details.

Flashes 101 (UC 10001) 1 credit hour

Course is not required for students with 30+ transfer credits (excluding College Credit Plus) or age 21+ at time of admission.

Diversity Domestic/Global (DIVD/DIVG) 2 courses

Students must successfully complete one domestic and one global course, of which one must be from the Kent Core.

Experiential Learning Requirement (ELR) varies

Students must successfully complete one course or approved experience.

Kent Core (see table below) 36-37 credit hours

Writing-Intensive Course (WIC) 1 course

Students must earn a minimum C grade in the course.

Upper-Division Requirement 39 credit hours

Students must successfully complete 39 upper-division (numbered 30000 to 49999) credit hours to graduate.

Total Credit Hour Requirement 120 credit hours

Kent Core Requirements

Kent Core Composition (KCMP) 6
Kent Core Mathematics and Critical Reasoning (KMCR) 3
Kent Core Humanities and Fine Arts (KHUM/KFA) (min one course each) 9
Kent Core Social Sciences (KSS) (must be from two disciplines) 6
Kent Core Basic Sciences (KBS/KLAB) (must include one laboratory) 6-7
Kent Core Additional (KADL) 6

Total Credit Hours: 36-37

Program Learning Outcomes

Graduates of this program will be able to:

1. Demonstrate an understanding of fundamental biological principles as outlined in specific courses.
2. Acquire fundamental skills necessary for laboratory and field investigations.
3. Demonstrate an understanding of proper experimental design, analysis of biological data and communication of research results.
4. Demonstrate a greater knowledge and appreciation of the role that biology plays in societal issues, such as those related to the environment, biodiversity, ethics, human health and disease.

Full Description

The Bachelor of Science degree in Zoology offers a modern and integrative study of animals. Students learn about individual animals, as
well as populations of animals across all levels of biological organization, from genes to ecosystems. The program also focuses on animal behavior and physiology, as well as how animals evolve, contribute to biodiversity and interact with each other and their environment.

Students may seek employment immediately after graduation or continue their education in graduate or professional programs. Those entering the workforce may go on to work for national or local parks, zoos/aquaria, museums, animal research facilities, wildlife rehabilitation centers, veterinarian offices or humane societies. The Department of Biological Sciences has several mechanisms to help students prepare for their future careers.