

# MICROBIOLOGY - MINOR

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

## About This Program

The Microbiology minor gives students an understanding of biology and the broader impacts of microorganisms, as well as specialized knowledge of the role of microbiology in medicine and environmental science.

## Contact Information

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- Speak with an Advisor

## Program Delivery

- **Delivery:**
  - In person
- **Location:**
  - Kent Campus

## Admission Requirements

Admission to a minor is open to students declared in a bachelor's degree, the A.A.B. or A.A.S. degree or the A.T.S. degree (not Individualized Program major). Students declared only in the A.A. or A.S. degree or the A.T.S. degree in Individualized Program may not declare a minor. Students may not pursue a minor and a major in the same discipline.

## Program Requirements

### Minor Requirements

| Code   | Title                                     | Credit Hours |
|--|---|--------------|
| <b>Minor Requirements</b>  |   |              |
| BSCI 10110   | BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB)   | 4            |
| BSCI 10120   | BIOLOGICAL FOUNDATIONS (ELR) (KBS) (KLAB) | 4            |
| BSCI 30140   | CELL BIOLOGY                              | 4            |
| BSCI 30171   | GENERAL MICROBIOLOGY                      | 4            |
| Biological Sciences (BSCI) Electives, choose from the following: |   | 6-7          |
| BSCI 30156   | ELEMENTS OF GENETICS                      |              |
| BSCI 40148   | PRINCIPLES OF INFECTIOUS DISEASE          |              |
| BSCI 40162   | SOIL BIOLOGY                              |              |
| BSCI 40174   | IMMUNOLOGY                                |              |
| BSCI 40273   | INTRODUCTION TO MYCOLOGY                  |              |
| BSCI 40363   | MICROBIAL ECOLOGY                         |              |
| BSCI 40380   | BIOGEOCHEMISTRY                           |              |
| BSCI 40581   | ANIMAL PARASITOLOGY                       |              |

Minimum Total Credit Hours: 22

## Graduation Requirements

| Minimum Minor GPA | Minimum Overall GPA |
|-------------------|---------------------|
| 2.000             | 2.000               |

- Minimum 6 credit hours in the minor must be upper-division coursework (30000 and 40000 level).
- Minimum 6 credit hours in the minor must be outside of the course requirements for any major or other minor the student is pursuing.
- Minimum 50 percent of the total credit hours for the minor must be taken at Kent State (in residence).

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

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

## Program Learning Outcomes

Graduates of this program will be able to:

1. Demonstrate knowledge about the biology of microorganisms, including physiology, cell biology, genetics, evolution, diversity and ecology of microorganisms.
2. Apply knowledge about microorganisms to issues in medicine, environmental science, public health or industry.
3. Read scientific reports and evaluate and communicate scientific data collected in the field of microbiology.
4. Acquire experience in laboratory procedures used in culturing and identifying microorganisms.