

# 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

- **Edgar Kooijman** | ekooijma@kent.edu | 330-672-8568
- 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.