



WESTERN ILLINOIS UNIVERSITY

# Microbiology

Department of Biological Sciences, College of Arts & Sciences

## Program of Study

The Microbiology option in Biology provides a broad background of knowledge and experience in molecular biology; genetics; cell biology; and microbe classification, function, and ecology. Advanced coursework is available in mycology (study of fungus), phycology (the study of algae), bacteriology (study of bacteria), the biology of archaea (microbes of extreme environments), virology (study of viruses), immunology, parasitology, pathogenic bacteria, and microbial fermentation.

## Faculty

Department of Biological Sciences faculty hold doctoral degrees from distinguished universities across the United States such as the Universities of Arkansas, Cornell, Colorado State, Connecticut, Eastern Illinois, Georgia, Iowa, Iowa State, Kentucky, Louisiana State, Maryland College Park, Massachusetts, Miami University–Ohio, Michigan, Minnesota, MIT, Missouri, New Mexico, Northern Illinois, Southern Illinois, and Texas A&M.

## Academic Awards

### GPA-Based Scholarships – No Application

The following scholarships are awarded by the Scholarship Committee based on overall GPA and the number of hours attended at WIU. Students selected for these scholarships will be notified in mid-Spring semester. We also award an outstanding senior (see the Mary A. Bennett Award below) in the Fall to the outstanding graduating Fall senior:

- **Roy M. Sallee Award** – *GPA, ACT, Year in School*: Outstanding GPA, Freshman; *Major, Other Requirements*: Biology major; awarded in Spring; *Award Amount*: Varies
- **H. D. Waggoner Memorial Award** – *GPA, ACT, Year in School*: Outstanding GPA, Sophomore; *Major, Other Requirements*: Biology major; awarded in Spring; *Award Amount*: Varies
- **Mary A. Bennett Award** – *GPA, ACT, Year in School*: Outstanding GPA, Senior; *Major, Other Requirements*: Biology major; awarded in Fall (for Fall graduating seniors) and Spring; *Award Amount*: Varies
- **R. M. Myers Award** – *GPA, ACT, Year in School*: Outstanding GPA, Junior; *Major, Other Requirements*: Biology major; awarded in Spring; *Award Amount*: Varies
- **Jean S. and Roger M. Morrow Award for Biology Education** – *GPA, ACT, Year in School*: Outstanding GPA, Junior; *Major, Other Requirements*: Biology Education major; awarded in Spring; *Award Amount*: Varies
- **Robert Henry Biological Sciences Award for Botany** – *GPA, ACT, Year in School*: Full-time undergraduate majoring in Biology; *Major, Other Requirements*: Plant Biology/Botany; awarded in Spring; *Award Amount*: \$150
- **Samuel L. Singer Award for Microbiology** – *GPA, ACT, Year in School*: Outstanding GPA, Senior; *Major, Other Requirements*: Microbiology; awarded in Spring; *Award Amount*: Varies

### Scholarships Requiring an Application\*

The following scholarships require an application at various times of the year. Their forms are typically posted in PDF format next to each award description. If you do not find a current application form posted, please contact the Chair of the Biological Sciences Scholarship Committee or obtain a hard copy from the Biological Sciences department advisors:

HIGHER VALUES IN HIGHER EDUCATION

- **P. James Nielsen Scholarship for Outstanding Undergraduate Pre-Professional Students**
- **George M. Ward Scholarship for Environmentally Concerned Students\***
- **Paul Nollen Biology Honors Scholarship\***

**Note:** The Mary McCutcheon Hofsess Scholarship for an entering Biology freshman of Brown County, Illinois, is no longer being offered.

## Honors in Biology

To be eligible for the Centennial Honors College, entering freshmen must have an ACT composite score of at least 28 OR have a 26 or 27 composite ACT and be in the top 15% of their graduating class OR have an ACT composite score of at least 24 and be in the top 10% of their high school graduating class. Transfer students with at least 12 semester hours and up to 59 semester hours of undergraduate courses are admitted with a grade point average of at least 3.3 OR 3.4 for 60 semester hours or more. To find out more, visit [wiu.edu/Honors](http://wiu.edu/Honors).

General honors seminars in the humanities, sciences, and social sciences provide students with the opportunity to explore key academic issues with distinguished faculty members. In the Biology major, honors students take courses for honors credit and, as seniors, complete research and prepare an honors thesis under the direction of a department faculty member. Successful completion of the departmental honors requirements is noted on the official transcript, and program graduates receive special recognition at Commencement.

## Student Activities

Biology students can participate in several departmental organizations such as the Beta Beta Beta Honor Society, Pre-Professional Club, Zoology Club, Botany Club, The Wildlife Society, The Fishing Club, and Sportsman's Club. A wide variety of student activities and organizations are available to all Western students. Learn more at [student.services.wiu.edu/osa](http://student.services.wiu.edu/osa).

## Alice L. Kibbe Life Science Station

Dr. Alice Kibbe, a well-known botanist, had a dream of starting a field station to promote teaching and research in field biology and ecology. Her ideals of promoting teaching, research, and conservation are the cornerstones on which the Alice L. Kibbe Life Science Station has been built. The Kibbe Life Science Station rests on 1,689 acres of natural area along the Mississippi River owned by Western, the Illinois Department of Natural Resources, and the Illinois Chapter of the Nature Conservancy. The facilities provide housing for 48 people, a community kitchen, a large gathering room, and two classrooms. To schedule research, events, or field courses, contact Sean Jenkins at (309) 298-2045 or James Lamer at (217) 256-4519.

## John G. Shedd Aquarium

Western Illinois University and the John G. Shedd Aquarium in Chicago joined forces in 1991 to carry out a common mission: public education and research on aquatic animals and plants. The Shedd Aquarium, "the ocean by the lake," is the world's largest indoor aquarium. More than 6,000 aquatic animals, representing more than 700 species, can be viewed there. Opportunities are available for students to do independent research projects such as creating fact sheets about sharks or monitoring fish or mammal behaviors; and Master of Science thesis projects such as studying acoustic responses by belugas and dolphins; development of wetland ecology lessons for high school teachers; and studying behavior, reproduction, or culture of fishes.

## Study Abroad Programs

Biology majors have the opportunity to take classes in popular countries such as Australia, Finland, China, New Zealand, and England. Previous Biology students have traveled to Costa Rica and studied the tropical environment, ecosystems, and habitats. There are many classes to choose from which all must be pre-approved by the Department Chair. Courses offered vary every semester; therefore, course availability cannot be guaranteed.

## After College

Microbiologists are needed for a variety of careers such as in molecular and genetics laboratories, agricultural laboratories, forensics, health careers, and for food and pharmaceutical industries. According to the U.S. Department of Labor, Bureau of Labor Statistics' *Occupational Outlook Handbook*, employment opportunities for biologists are expected to increase 10 to 20% by 2012.

## For More Information

You can learn more about the Department of Biological Sciences by visiting [wiu.edu/biology](http://wiu.edu/biology) or by calling the department office at (309) 298-1546.

[wiu.edu/biology](http://wiu.edu/biology)

### Department of Biological Sciences

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