



WESTERN ILLINOIS UNIVERSITY

Biology with Teacher Certification in Science

Department of Biological Sciences, College of Arts & Sciences

Why Biology with Teacher Certification?

Biology is the science of living organisms—past and present, microscopic through macroscopic. The study of biology includes such diverse areas as genetics, cell structure and function, anatomy and physiology, ecology, botany, zoology, and microbiology. The study of biology is critical to those interested in natural resources, biotechnology, medicine and health, etc. Well-prepared middle school and high school biology teachers provide the important first step in helping prepare those interested in pursuing careers requiring a biology background. For many students, high school biology is also the last time they take a course that helps them understand the important role of science, especially biology, in our technological world.

Major Program of Study

Students combine a study of biology, chemistry, physics, and the Earth and space sciences with a study of teaching foundations and various field and clinical experiences as they complete this major. Successful completion of this program leads toward a Bachelor of Science in Biology as well as Illinois teacher certification for grades 6-12. The specific certification allows completers to teach all areas of the sciences within the regular curriculum as well as honors and advanced placement biology and life science courses. The culminating experience for this program is a 16-week student teaching experience typically with eight weeks at the middle school level and eight weeks at the high school level. Students considering a Biology major should complete at least one year each of high school biology, chemistry, and physics (if available) as well as four years of English, two years of a foreign language, and three years of mathematics.

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:

- **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

HIGHER VALUES IN HIGHER EDUCATION

- **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

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:

- **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 (SH) and up to 59 SH of undergraduate courses are admitted with a GPA of at least 3.3 OR 3.4 for 60 SH or more. 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. To find out more, visit wiu.edu/Honors.

Student Activities

Biology students in the teacher certification program participate in a number of activities through their program, including judging science fairs, coordinating events for Science Olympiad, and attending the WIU Secondary Science Education Conference as well as Biology Day. They are also strongly encouraged to participate in professional organizations such as the Illinois Science Teachers Association, National Science Teachers Association, and the National Association of Biology Teachers. In addition, students can participate in several departmental organizations such as the Wildlife Society, Sportsman's Club, Tri-Beta, Botany Club, Pre-Professional Club, and the Fishing Club. A wide variety of student activities and organizations are available to all Western students. Learn more at <http://osa.wiu.edu>.

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.

After College

Middle and high school teachers are in great demand. Science teachers are a Designated Teacher Shortage Area in the State of Illinois (www.isbe.net/research/htmls/teacher_shortage.htm) as they are in many states. The demand for highly qualified science teachers is anticipated to increase by 15% or more (America's Career InfoNet) by the year 2016.

For More Information

You can learn more about the Department of Biological Sciences by visiting wiu.edu/users/mibiol or by calling the department office at (309) 298-1546.

wiu.edu/users/mibiol

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