

Careers

With an undergraduate degree in Biology, there is an incredibly diverse range of career paths to choose. The Biology Department at Western has several degrees and emphasis areas that cover this broad spectrum of career opportunities.

The General Biology emphasis and Natural Science/Biology degrees are general purpose programs designed for students desiring greater flexibility in career paths.

With a Bachelor of Science degree in Wildlife Conservation and Management, graduates accept positions with state and federal wildlife agencies and various environmental consulting firms. Graduates who receive their Bachelor of Science degree in Biochemistry & Molecular Biology and Biotechnology find success in the life science industries.

Students who pursue the Natural Science/Biology Teaching degree are licensed to begin a career teaching science. The Bachelor of Science Biology/Health Sciences degree is designed to prepare undergraduate students for medical school, dental school, veterinary school, and other health related fields.

The Physical Therapist Assistant degree program prepares graduates for careers in a variety of health care settings, including hospitals, outpatient clinics, nursing homes and home health.



Alumni Views

“As a biology professor I continually think back on my Western experiences as I work with my own students and their research projects. I have come to appreciate my Western professors even more now that

I am doing the same thing. My training as an undergraduate at Western was second to none.”

*John C. Mullican, '87, Ph.D.
Associate Professor of Biology
Washburn University, Topeka, Kan.*

“The outstanding education I received at Western enabled me to gain acceptance into medical school. While at Western, I had the privilege of being taught by and working with exceptional science professors. I treasure the memories of interacting with faculty and other students.”

*Michelle Cebulko, '93, MD
Pediatrician at Lakeside Pediatrics
St. Joseph, Mo.*

For more information

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Biology

Missouri Western State University





Biology Department

Have you ever wondered why it is so hard to find a cure for cancer or a vaccine against HIV-1? Do you think about how humans can coexist with other living things, preserving them and their environments for future generations? If you are awed by the incredible diversity of

everything in nature, consider becoming a part of the Century of Biology.

Biology is the science of life. It is concerned with the characteristics and behaviors of organisms, how species and individuals come into existence, and the interactions they have with each other and with their environment.

The Department of Biology at Western combines the academic study of biology with strong laboratory experience, independent research, and numerous internship opportunities. Within the small class settings, students learn to become "critical thinkers," capable of succeeding in a variety of jobs.

The future for graduates with a degree in biological sciences is very promising. Just as the 20th century was the Century of Chemistry and Physics, the 21st century is predicted to be The Century of Biology with high expectations for new discoveries and new industries in the life science fields.

Creative people with a strong foundation in biology are needed in agriculture, pharmaceuticals, medicine,

environmental science and conservation. The Biology Department at Western has excellent programs for entry-level positions in all of these fields. The department also provides an excellent foundation for entry into graduate and advanced professional schools. Many students pursue their bachelor's degree in biology as preparation for medical school, dental school, veterinary school, and graduate school.

Internships, Research & Study Abroad Opportunities

Nearly half of students in the biology program are involved in practical learning experiences on- and off-campus through a variety of internships. Teaching internships are available every semester to upper-level biology majors for credit. These students work in general biology classes, core biology courses, and laboratories.

Off-campus internships are available at state agencies, such as the Missouri Department of Conservation, the Missouri Department of Natural Resources, and the Arizona Fish and Game. The U.S. National Park Service, the U.S. Fish and Wildlife Service, the World Bird Sanctuary and the International Wolf Center are other agencies through which students perform faculty-sponsored student internships. Other opportunities allow students to intern at local hospitals, medical or veterinary



clinics, and several of the local life science industries, including Boehringer-Ingelheim Vetmedica, Inc. and Becker Underwood.

All Western graduates complete multiple class-related research projects. Students either work individually or in small groups on faculty-sponsored projects. The general research areas span molecular, cellular, organismal and ecological as well as science education. The mission of the department is to provide a collaborative learning environment in which students and faculty can apply their biological exploration and discovery experiences as professionals and as informed citizens. The department has received nearly \$500,000 in grants to support student and faculty research in the past two years.

A high percentage of Western students have been selected to present their individual research projects at state, regional and national professional meetings. Several of our students have been awarded recognition through these professional affiliations, and others have had their research findings published in industry related publications.

The department also provides a variety of study abroad opportunities. The Field Natural History course is specifically designed for students to experience biological habitats outside of the area. Marine biology trips are scheduled almost every spring. Recently marine biology students have studied in Belize, San Salvador, the Bahamas and Jamaica. Special field natural history classes to the Rocky Mountains and other destinations are also offered from time to time.

Points of Pride

- **The department has received nearly \$500,000 in grants to support student and faculty research in the past two years.**
- **Our laboratories are fully equipped with state-of-the-art equipment to do molecular cloning, DNA amplification, DNA sequencing and microarray analysis experiments.**
- **Our campus includes a 180-acre field study area consisting of a network of trails, various habitats, ponds, a stream, two outdoor amphitheaters, offices and labs for the Missouri Department of Conservation, and a Natural History Collection of museum specimens.**
- **The Department of Biology boasts a placement rate of 100% for science teachers.**
- **Our programs are accredited by the State of Missouri, NCATE, the Commission on Accreditation of Physical Therapy Education, and wildlife biologist certification by the Wildlife Society.**