



The **Bachelor's Degrees** in

# Biology

## **Understand living organisms.**

Biology is the science behind living organisms, including the origin and history of animal and plant life, and their characteristics, function, processes and habits. Biology majors develop the fundamentals needed to pursue diverse career opportunities. Graduates are often hired by local companies specializing in biotechnology, conservation and basic science research. Many graduates pursue diverse professional degrees including dentistry, law, medicine, optometry, pharmacy and podiatry. Numerous graduates also reach advanced research positions by undertaking additional scientific training in master's and doctoral programs in the biological sciences.

## **The Bachelor's Degrees in Biology**

The Bachelor's degrees in Biology are available as both a BA and a BS, with both designed to prepare students for basic technical positions and graduate or professional studies in the life sciences. Both have the same core courses and general education requirements, but the BA has more emphasis on associated humanities areas, while the BS requires additional in-depth study, laboratory experience, communication skills and background in associated science areas.

Upon completion of the BA or the BS in Biology, graduates will be able to understand the overriding principles and theorems within and between the content areas of anatomy, botany, cell and molecular biology, ecology, evolutionary biology, microbiology, physiology and zoology. Specifically, graduates will understand the structure and function of basic biological units of living organisms; information flow, exchange and storage from parent to offspring or from parent cells to progeny cells; pathways and transformations of energy and matter that govern metabolism; systems that govern interactions between organisms or between organisms and their environment; biodiversity at the genetic, organismal, community, and global scales; and evolution, common ancestry and changes to biological populations over successive generations.

## **2+3 BS/MS Dual Degree Program**

The Master of Science in Biology is also offered in the 2+3 program format. This unique 2+3 dual degree program provides a pathway for students to earn both a bachelor's and a master's degree in Biology with fewer total credit hours than would be required to complete each degree independently. Once all requirements have been met, students will be awarded both a BS and an MS and are able to enter the job market with a competitive edge.

## Transforming Lives

The Bachelor's degrees in Biology at UMSL are earned through our College of Arts and Sciences, the academic core of the University of Missouri–St. Louis. Through academic programs offered on- and off- campus, traditional and nontraditional students gain knowledge, skills and intellectual leadership for a variety of career paths, advanced study and research in many academic disciplines.

Graduates are known for their professionalism on the job and their strong sense of civic responsibility. Students in our programs engage in creative and critical thinking, learn to analyze evidence, to appreciate patterns of complexity and to reflect on important issues that impact our daily lives. Students gain skill sets to prepare for a changing workplace that requires flexible, dynamic, and well-educated employees.

The Biology Department ranks in the top 20 percent of the nation's research institutions, based on scholarly productivity and federal research grant funding. This provides students an opportunity to engage in hands-on research alongside faculty. Biology is home to the Whitney R. Harris World Ecology Center, which supports student training in ecology, evolution and biodiversity conservation throughout the world. Biology students benefit from the Science Learning Building, a \$32 million addition to the UMSL science complex that provides state-of-the-art, dedicated teaching lab spaces for students.

## Serious education. Serious value.

The Bachelor's degrees in Biology are designed to provide specialized knowledge, skills and training in a flexible format, with classes available in-person, online and in a hybrid format. You'll learn from highly qualified educators and researchers who hold terminal degrees from some of the world's most prestigious academic institutions.

The University of Missouri–St. Louis provides the knowledge, resources, tools, skills and support students need to be successful in our programs. Our comprehensive student support services include workshops, tutoring and career services to help you develop skills and strategies to be successful in the classroom and beyond. UMSL welcomes transfer students and our transfer specialists will assist you with getting the most transfer credits possible. We're also committed to increasing access to higher education, and as such, UMSL is consistently ranked number one in affordability in the St. Louis region.

## Learn more at [biology.umsl.edu](http://biology.umsl.edu)

The University of Missouri–St. Louis is the largest public research university located in Missouri's most populous and economically important region. UMSL provides high-quality, affordable education to one of the most diverse student bodies in the state. No university is better connected to the surrounding region than UMSL. Seventy-three percent of our graduates stay in St. Louis. The region needs a well-equipped workforce and UMSL is prepared to help you meet those needs. Choose the University of Missouri–St. Louis for biology.

## Career Pathways

Conservation Biologist  
Environmental Educator  
Health Sciences Professional  
Laboratory or Field Research  
Assistant/Scientist  
Medical and Technical Sales  
and Support Representative  
Regulatory/Government Affairs  
Specialist  
Teacher/Professor

### College of Arts & Sciences

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### Department of Biology

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### Office of Admissions

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