The **Bachelor of Science** in

Biochemistry and Biotechnology

Advance humanity.

Biochemistry studies the intersection of biology and chemistry, exploring life at the molecular level. Biotechnology combines chemistry and biology with mathematics and physics to provide the tools for modern biology and biomedical research. Biotechnology is also used to study and alter genetic information in animals, allowing human diseases to be studied and modeled, and in plants, with agricultural benefits.

The Bachelor of Science in Biochemistry and Biotechnology

The BS in Biochemistry and Biotechnology allows students to develop the skills necessary to enter the biotechnology and life sciences workforce or to pursue further studies at the professional or graduate level. This interdisciplinary degree is supported by the Chemistry & Biochemistry Department and the Biology Department. Students receive solid foundations in both chemistry and biology, as well as the opportunity to specialize within the rapidly growing fields of biochemistry and biotechnology.

Upon completion of the program, graduates will be able to understand the overriding principles and themes within and between chemistry, biology and biochemistry; develop basic skills associated with performing laboratory experiments; formulate meaningful hypotheses and evaluate data critically; define and solve scientific problems; take general principles from chemistry, biochemistry and biology and apply them towards solutions for novel and emerging biotechnology problems; present data in a clear and accurate manner, clearly communicating orally and in writing; find and retrieve information within scientific literature, read and comprehend it to critically evaluate reliability, accuracy, authority and point of view or bias; follow standard scientific practices; demonstrate an understanding and respect for the accepted standards of conduct associated with the profession.

2+3 BS/MS Dual Degree Program

The Master of Science in Biochemistry and Biotechnology 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 Biochemistry and Biotechnology 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.

UMSL | Arts & Sciences
University of Missouri–St. Louis

Transforming Lives

The Bachelor of Science in Biochemistry and Biotechnology at UMSL is 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. Both biology and chemistry students have the opportunity to engage in hands-on research projects under the guidance of faculty. Science 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 of Science in Biochemistry and Biotechnology is 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 biochem.umsl.edu

Career Pathways

Biological Technician
Chemical Technician
Chemist
Clinical Research Specialist
Food Scientist
Forensic Scientist
Lab Technician
Molecular Biologist
Pharmaceutical Researcher
Pre-Med
Quality Assurance/Regulatory Affairs
Teacher

College of Arts & Sciences
1 University Blvd.
303 Lucas Hall
St. Louis, MO 63121
314-516-5501
artscience@umsl.edu
umsl.edu/divisions/artscience/

Department of Biochemistry and Biotechnology
1 University Blvd.
320 Benton Hall
St. Louis, MO 63121
314-516-5331
bcbtinfo@umsl.edu
biochem.umsl.edu

Office of Admissions
1 University Blvd.
351 Millennium Student Center
St. Louis, MO 63121
314-516-5451
admissions@umsl.edu
admissions.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 with biochemistry and biotechnology skills and UMSL is prepared to help you meet those needs. Choose the University of Missouri–St. Louis for biochemistry and biotechnology.

CHOOSE UMSL

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