

BACHELOR OF SCIENCE IN BIOLOGY - BIOMEDICAL SCIENCES EMPHASIS, 2024-25

For more information about policies and requirements, please see the UMKC 2024-25 Catalog.

FIRST YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
BIOLOGY 108/108L General Biology I	4	BIOLOGY 109/109L General Biology II	4
CHEM 211/211L General Chemistry I	5	CHEM 212R/212LR General Chemistry II	5
GEFSE 101 First Semester Experience	3	ENGLISH 110 Introduction to Academic Prose	3
GECRT-SC Critical Thinking in Natural & Physical Sci	3	MATH 120 Precalculus	5
TOTAL	15	TOTAL	17

SECOND YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
BIOLOGY 202 Cell Biology	3	BIOLOGY 206 Genetics	3
CHEM 321/321L Organic Chemistry I	4	CHEM 322R/322L Organic Chemistry II	4
MATH 210 Calculus I	4	MATH 220 Calculus II, STAT 235 Elementary Statistics, OR BIOLOGY 304 Biostatistics 1	4
ENGLISH 225 English II: Intermed Academic Prose	3	Communication Requirement (COMM-ST 110, 140, or 277)	3
		GECRT-SS Critical Thinking in Social & Behavioral Sciences	3
TOTAL	14	TOTAL	17

THIRD YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
BIOLOGY 218/218L Introductory Anatomy/Lab	5	BIOLOGY 441 Biochemistry	3
LIFE-SCI 201 Careers in Health I	1	LIFE-SCI 202 Careers in Health II Credit: 1	1
LIFE-SCI 310 Fundamentals of Medicine I	2	LIFE-SCI 320 Fundamentals of Medicine II	2
PHYSICS 210 General Physics I or 240 Physics for Scientists and Engineers I	4	MEDICINE 9115 Medical Terminology OR HLSC 125 Medical Terminology	1
GECRT-AH Critical Thinking in Arts & Humanities	3	PHYSICS 220 General Physics II or 250 Physics for Scientists and Engineers II	4
		GECDV Culture & Diversity	3
TOTAL	15	TOTAL	14

FOURTH YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
BIOLOGY 313 Microbiology	3	BIOLOGY 498WI, LIFE-SCI 497, or LIFE-SCI 499	3
BIOLOGY 313L OR 313WL Laboratory in Microbiology	3	LIFE-SCI 340 Fundamentals of Medicine IV	2
BIOLOGY 316 Principles of Physiology	3	General Elective 300/400	3
LIFE-SCI 330 Fundamentals of Medicine III	2	General Elective 300/400	3
GECUE Civic & Urban Engagement	3	Constitution Requirement (HISTORY 101, 102, POL-SCI 210, CJC 364 or HON 230)	3
TOTAL	14	TOTAL	14

Additional Graduation Requirements: Civics Exam and HEIghten Exit Exam

Total Credits to Graduate: 120

School of Science and Engineering

Why Major in Biology



Beyond The Classroom

Students build experience by participating in our **student-led teams or organizations:**

- Biological Sciences Society
- SSE Student Government
- Student Environmental Coalition
- Women in Science

Discover opportunities in health care by joining our **Pre-Professional Societies** related to medicine, dentistry, pharmacy, veterinary medicine, optometry, and physician assistant.

Kansas City offers opportunities for students to **shadow various professionals** from wildlife experts to medical professionals in a multitude of specialties.

Prepare for your academic journey and meet your future classmates by participating in our one week **SSE Boot Camp**.

UMKC is one of the few universities to have a School of Medicine, School of Nursing, School of Pharmacy, and School of Dentistry on our campus.



Personalize Your Degree

Students can opt into **emphasis areas** such as:

- Bioinformatics, Biomedical Sciences, Biotechnology, or Clinical Laboratory Science

Students interested in health sciences are assigned a **pre-health advisor** to ensure they are meeting the requirements for their future goals.

Explore areas of biology through electives in Zoology, Evolution, Marine & Freshwater Biology, Infections Diseases, Histology, Virology, etc.

One credit **careers courses** introduce students to opportunities in industry, research, and prepare students to apply to professional medical programs.

Participate in **innovative and ground-breaking research** alongside faculty mentors:

- Explore sensory cell regeneration using zebrafish
- Join neuroscience research to examine the relationship between sleep and memory



After Graduation

SSE connects students with industry partners and professional programs in the area through two **STEM Career Fairs** each year.

Easily earn a **master's degree** through our BS to MS program which allows students to complete a graduate degree at undergraduate tuition rates.

The Kansas City area is home to nearly **300 life science companies** allowing for ease of access to internships and future employment.

Kansas City is renowned for its **strengths in bioscience and medical research**, including:

- comparative medicine, cardiology, neuroscience, pharmaceutical development, outcomes research, and oncology

The KC Animal Health Corridor is the **largest concentration of animal health companies** in the world.