

MD Program, MS Anesthesia, Physician Assistant

University of Missouri - Kansas City

Johnson County Community College Transfer Program to the University of Missouri - Kansas City	James Shackelford
School of Medicine	816-235-1870
Master of Medical Science - Physician Assistant Master of Science in Anesthesia	medicine@umkc.edu
Academic Year 2025-2026	http://med.umkc.edu/

Program Description

The Associate of Arts, AA (<https://catalog.jccc.edu/degree/requirements/associate-arts/>) at JCCC is a general transfer degree and partners well with the first two years of most bachelor degree programs. Students pursuing the AA may select courses that satisfy both the AA degree requirements and lower division requirements for a bachelor's degree at four-year institutions. The elective hours within the AA allow students to complete additional general education and lower division courses required for specific majors. The AA degree requires completion of 60 credit hours. Meeting with a JCCC counselor (<https://www.jccc.edu/student-resources/counseling/academic-counseling/>) is strongly recommended for selection of appropriate courses.

NOTE: Completing an Associate of Arts degree or the Associate of Science in General Sciences at JCCC will satisfy all general education requirements at UMKC including the Missouri Constitution Course requirement. *It is highly recommended that students complete the Associates degree prior to transfer to UMKC whenever possible.*

General UMKC Transfer Admission Requirements:

- 2.0 or higher cumulative GPA.
- Credit/No-credit or Pass/Fail coursework may only be applied to elective coursework and will not apply towards UMKC's General Education Core or major requirements.
- Full transfer admission requirements (<https://www.umkc.edu/transfer/apply.html>).

UMKC MD PROGRAM (<https://med.umkc.edu/academics/degree-and-certificate-programs/md/requirements.html>) **ADMISSION REQUIREMENTS**

Coursework

- Have earned, or will soon earn, a baccalaureate, master's or doctoral degree awarded from a regionally- accredited college or university located in the United States.
- Earned a minimum cumulative GPA of 3.0 (graduate or undergraduate)
 - Out-of-state students are required to have a cumulative GPA of 3.5
- Earned a minimum GPA of 3.0 in the AMCAS BCPM (Biology, Chemistry, Physics, and Math coursework), graduate or undergraduate
 - Out-of-state students are required to have a GPA of 3.5 in the AMCAS BCPM
- Completed one semester each of these three prerequisites with a grade of "B" or better: biochemistry (upper level), genetics and cell biology. These courses must be completed with a grade of "B" or better at a regionally accredited college or university located in the United States.

MCAT Score

- The Medical College Admission Test is required with a minimum score of 495.
- MCAT scores must have been earned within three years of the application deadline.
- The latest MCAT score accepted for initial application review is the July MCAT. (Scores must be sent to AMCAS by August 1st.) If a student is selected for an interview, the latest MCAT score accepted for final review by the Council on Selection is the August MCAT.
- UMKC School of Medicine MCAT code: 808.

Admissions Eligibility

- Permanent resident status must be achieved by August 1 of the year before the spring term for which applicant is applying. A copy of the permanent resident card must accompany the general application for admission.
- International students are not eligible for admission to the M.D. program.
- Must not have been enrolled as a medical student at another medical school or at UMKC School of Medicine.
- Although out-of-state students are welcome to apply to the M.D. Program, preference and priority consideration is given to in-state students from the stat of Missouri as well as to regional students from the states of Arkansas, Illinois, Kansas, Nebraska, and Oklahoma.

Recommended Transfer Courses for MD Program:

Course Code	Course Title	Course Hours	Transfer Code	Transfer Title	Transfer Hours
Code	Title	Hours			
One semester of biochemistry (Upper Division)					
LS-BIOC 341	Basic Biochemistry				
No Equivalent, but prerequisites for this upper level course can be taken at JCCC					
BIOLOGY 202 Cell Biology					
No Equivalent, but prerequisites for this course can be taken at JCCC					
BIOL 135	Principles of Cell and Molecular Biology	4	BIOL 108 & BIOLOGY 108	General Biology I and General Biology I	3
BIOL 150	Biology of Organisms*	5	BIOLOGY 109	General Biology II	
BIOL 205	General Genetics* One semester of genetics	4	BIOLOGY 206	Genetics	
BIOL 135	Principles of Cell and Molecular Biology One semester of cell biology	4	BIOLOGY 202	Cell Biology	

(Not Equivalent to UMKC BIOLOGY 202, but meets the “cell biology” requirement)

UMKC MASTER OF MEDICAL SCIENCE PHYSICIAN ASSISTANT PROGRAM ADMISSION REQUIREMENTS (<http://med.umkc.edu/pa/requirements/>)

Coursework

- Applicants for admission to the MMSPA program must have earned, or will soon earn, a baccalaureate, masters or doctoral degree from a regionally accredited college or university located in the United States or Canada.
- Applicants must earn a minimum cumulative GPA of 3.0.
- Applicants must complete the following pre-requisite coursework (science major level courses) prior to matriculation, with a pre-requisite GPA of 3.0 or higher. It is required that applicants earn a grade of “C” or better in all coursework:
 - One semester of general biology with lab
 - One semester of anatomy with lab (human anatomy preferred)
 - One semester of physiology with lab (One semester of anatomy and physiology with lab (4+ credit hour course) may be accepted for one semester of anatomy with lab and one semester of physiology with lab)
 - One semester of microbiology with lab
 - Two semesters of general chemistry (or equivalent) with lab
 - One semester of organic chemistry with lab
 - One semester of biochemistry (upper level course)
 - One semester of statistics
 - One medical terminology course
 - One semester of genetics
 - One semester of psychology
- Pre-requisite coursework must be completed at a regionally accredited college or university located in the United States or Canada, preferably within seven years of the application deadline.

MCAT or GRE Score – The MCAT or GRE exam is no longer required.

Shadowing Experience

- It is recommended, but not required that candidates for the PA program shadow a PA prior to applying for the program as it is a significant opportunity to learn about the profession. Shadowing can occur in-person or virtually. Shadowing is a means by which a candidate might receive healthcare or patient care experience.
- Candidates will have the opportunity to document their shadowing experiences in the supplemental application provided in the PA Student Portal (after the CASPA application has been verified).
- To successfully verify shadowing experience, applicants must either have their shadowing experiences verified electronically by the shadowing provider or use the electronic Shadowing Experience Verification Form provided through the PA Student Portal (after the CASPA application has been verified).
- Applicants can verify shadowing experiences one of two ways:
 1. To verify a shadowing experience electronically, an applicant will need to list the name(s) and email address(es) of those providing a shadowing experience verification form in the PA Student Portal. After entering the information for each person electronically verifying the experience, an applicant will need to click “Send Email Request” in order for the person providing the verification to receive instructions for completing the online PA Program Shadowing Experience Verification Form.
 2. To verify a shadowing experience with the Shadowing Experience Verification Form (<https://med.umkc.edu/documents/academics/umkc-school-of-medicine-shadowing-form-1-1.pdf>), applicants must download, print, and complete the information at the bottom of the form. After completing the information, ask the provider who supervised your experience to sign and date the verification form. An applicant will need to list the name(s) and email address(es) of those providing a shadowing experience verification form in the PA Student Portal (after the CASPA application has been verified). The PDF form should then be submitted directly to the PA Student Portal. Once the PA Student Portal has been submitted, no changes or additions to the PA Student Portal, including the shadowing experience section, may be made.

Admissions Eligibility

- Must be a U.S. citizen or permanent resident. (International applicants are not eligible for admission.)
- Permanent resident status must be achieved by June 15th of the year before the spring term for which you are applying. A copy of the permanent resident card must accompany the **UMKC General Application for Admission**.
- While out-of-state students are welcome to apply to UMKC's PA Program, preference and priority consideration is given to in-state students from the state of Missouri, followed by students from the state of Kansas.

Recommended Transfer Courses for Physician Assistant Program:

Course Code Code	Course Title Title	Course Hours	Transfer Code Hours	Transfer Title	Transfer Hours
One semester of general biology with lab					
Select one of the following:					
BIOL 135	Principles of Cell and Molecular Biology	4	BIOL 108 & BIOLOGY 108	General Biology I and General Biology I	3
BIOL 150	Biology of Organisms*	5	BIOLOGY 109/109L	General Biology II and Lab	
One semester of anatomy with lab (human anatomy preferred) AND one semester or physiology with lab					
BIOL 140	Human Anatomy	4	BIOLOGY 218/218L	Human Anatomy/Lab	
BIOL 225	Human Physiology*	4	LS-PHYS 217 BIOLOGY 217L	Human Physiology/Lab	
OR					
One semester of anatomy and physiology with lab, 4 credit hours					
BIOL 144	Human Anatomy and Physiology*	5		Biology Elective	
BIOL 145	Human Anatomy and Physiology Dissection*	1		Biology Elective	
One semester of microbiology with lab					
BIOL 230 & BIOL 231	Microbiology* and Microbiology Lab*	3	BIOLOGY 113 Introductory Microbiology AND BIOLOGY 114 Microbiology Disease Lab		
Two semesters of general chemistry with lab					
CHEM 124 & CHEM 125	General Chemistry I Lecture* and General Chemistry I Lab*	4	CHEM 211 & CHEM 211L	General Chemistry I and Experimental Gen Chemistry I	1
AND					
CHEM 131 & CHEM 132	General Chemistry II Lecture* and General Chemistry II Lab*	4	CHEM 212R & CHEM 212LR	General Chemistry II and Experimental Gen Chemistry II	1
One semester of organic chemistry with lab					
Select one of the following:					
CHEM 140	Principles of Organic Biological Chemistry*	5	CHEM 320/320L	Elementary Organic Chemistry and Lab	
CHEM 220	Organic Chemistry I*	5	CHEM 321	Organic Chemistry I	3
One semester of biochemistry (Upper Division)					
LS-BIOC 341 Basic Biochemistry <small>No Equivalent, but prerequisites for this upper level course can be taken at JCCC</small>					
BIOLOGY 202 Cell Biology <small>No Equivalent, but prerequisites for this course can be taken at JCCC</small>					
BIOL 135	Principles of Cell and Molecular Biology Prerequisite for BIOLOGY 202	4	BIOL 108 & BIOLOGY 108	General Biology I and General Biology I	3

BIOL 150	Biology of Organisms* Prerequisite for BIOLOGY 202	5	BIOLOGY 109 General Biology II	
CHEM 124 & CHEM 125	General Chemistry I Lecture* and General Chemistry I Lab* Prerequisite for CHEM 212R/LR	4	CHEM 211 & CHEM 211L	General Chemistry I and Experimental Gen Chemistry I 1
CHEM 131 & CHEM 132	General Chemistry II Lecture* and General Chemistry II Lab* Prerequisite for BIOLOGY 202	4	CHEM 212R & CHEM 212LR	General Chemistry II and Experimental Gen Chemistry II 1
One semester of statistics				
MATH 201	Statistics*	3	STAT 235 Elementary Statistics	
One medical terminology course				
HC 130	Medical Terminology for Healthcare Professions (Transfer: HLSC 125)	3		
One semester of genetics				
BIOL 205	General Genetics*	4	BIOLOGY 206 Genetics	
One semester of psychology				
PSYC 130	Introduction to Psychology	3	PSYCH 210	General Psychology 3

UMKC MASTER OF SCIENCE IN ANESTHESIA (<http://med.umkc.edu/msa/requirements/>) **ADMISSION REQUIREMENTS**

Coursework

- Applicants for admission to the MSA program must have earned, or will soon earn, a baccalaureate degree or higher from a regionally-accredited U.S. or Canadian college/university.
- All applicants must have a cumulative GPA of 3.0 or higher.
- Applicants must complete the following pre-requisite courses at a regionally accredited college or university located in the United States or Canada prior to matriculation, with a cumulative GPA of 3.0 or higher. It is required that applicants receive a grade of "C" or better in pre-requisite courses:
 - Two semesters of biology with lab
 - Two semesters of general chemistry with lab
 - One semester of organic chemistry I with lab
 - One semester of organic chemistry II with lab
 - Two semesters of physics (sophomore level) with lab
 - One semester of biochemistry (upper-level)**
 - One semester of human anatomy
 - One semester of physiology**
 - One semester of human anatomy and physiology (4+ credit hour course) may be accepted for one semester of human anatomy and one semester of physiology.
 - One semester of statistics (quantitative-based)
 - One semester of mathematics (calculus, pre-calculus, additional statistics, college algebra or trigonometry)
 - One course in medical terminology

**Those courses marked with two asterisks must have been completed within five years of the application deadline.

MCAT or GRE Score

- The Medical College Admissions Test or the Graduate Record Examination is required.
- MCAT/GRE scores must have been earned within three years of the application deadline. The latest MCAT/GRE score accepted for the Final Application deadline is the July MCAT/GRE.

- Currently, there is no minimum score required for admission. The recommended minimum on the MCAT is a 494 composite score; the recommended minimum on the GRE is 300.
- When the MCAT/GRE has been taken more than once, component scores from different exams may not be combined. The highest MCAT/GRE score earned by an applicant will be used in the application.
- For the MCAT: Applicants must submit official MCAT scores through CASAA after self-reporting their MCAT scores and entering their AAMC ID number into the CASAA application. Applicants should contact AAMC to request their official scores to be released to CASAA following the self-reporting of their score and identification information.
- For the GRE: Applicants must submit official GRE scores to the UMKC CASAA code: 4410.
- Note: Official MCAT and GRE scores must be released through CASAA, and an applicant may not submit scores to the UMKC institutional codes in lieu of the CASAA process.

Shadowing Experience

- Experience shadowing an anesthesia provider (anesthesiologist, Anesthesiologist Assistant, or CRNA) is required prior to the application deadline. Note: the required shadowing hours may not be fulfilled within employment, internship, or class experiences.
- A minimum of four (4) hours of shadowing experience is required.

Admissions Eligibility

- Must be U.S. citizens or permanent residents.
- Permanent resident status must be achieved by August 15 of the year before the spring term for which applicant is applying. A copy of the permanent resident card must accompany the UMKC General Application for Admission.
- International applicants are not eligible for admission to the MSA program.

Recommended Transfer Courses for Master of Science in Anesthesia Program

Course Code	Course Title	Course Hours	Transfer Code	Transfer Title	Transfer Hours
Code	Title	Hours			
Two semesters of biology with lab					
BIOL 135	Principles of Cell and Molecular Biology	4	BIOL 108 & BIOLOGY 108	General Biology I and General Biology I	3
BIOL 150	Biology of Organisms*	5	BIOLOGY 109/109L	General Biology II and Lab	
Two semesters of general chemistry with lab					
CHEM 124 & CHEM 125	General Chemistry I Lecture* and General Chemistry I Lab*	4	CHEM 211 & CHEM 211L	General Chemistry I and Experimental Gen Chemistry I	1
AND					
CHEM 131 & CHEM 132	General Chemistry II Lecture* and General Chemistry II Lab*	4	CHEM 212R & CHEM 212LR	General Chemistry II and Experimental Gen Chemistry II	1
One semester of organic chemistry I with lab					
CHEM 220	Organic Chemistry I*	5	CHEM 321	Organic Chemistry I	3
One semester of organic chemistry II with lab					
CHEM 221	Organic Chemistry II*	5	CHEM 322R	Organic Chemistry II	3
Two semesters of physics with lab (sophomore level)					
PHYS 130	College Physics I*	5	PHYSICS 210	General Physic I	4
PHYS 131	College Physics II*	5	PHYSICS 220	General Physics II	4
One semester of biochemistry (Upper Division)					
Prerequisite for LS-BIOC 341					
LS-BIOC 341 Basic Biochemistry No Equivalent, but prerequisites for this upper level course can be taken at JCCC					
BIOLOGY 202 Cell Biology No Equivalent, but prerequisites for this course can be taken at JCCC					



BIOL 135	Principles of Cell and Molecular Biology Prerequisite for BIOLOGY 202	4	BIOL 108 & BIOLOGY 108	General Biology I and General Biology I	3
BIOL 150	Biology of Organisms* Prerequisite for BIOLOGY 202	5	BIOLOGY 109	General Biology II	
CHEM 124 & CHEM 125	General Chemistry I Lecture* and General Chemistry I Lab* Prerequisite for CHEM 212R/LR	4	CHEM 211 & CHEM 211L	General Chemistry I and Experimental Gen Chemistry I	1
CHEM 131 & CHEM 132	General Chemistry II Lecture* and General Chemistry II Lab* Prerequisite for BIOLOGY 202	4	CHEM 212R & CHEM 212LR	General Chemistry II and Experimental Gen Chemistry II	1

One semester of anatomy with lab (human anatomy preferred) AND one semester or physiology with lab

BIOL 140	Human Anatomy	4	BIOLOGY 218 & HLSC 120 & LS ANATO 218 & LSAN 118 & LSAN 218 & N 120 & NURSE 120	Introductory Anatomy and Anatomy Physiology I and Introductory Anatomy and Intro Anatomy and Introductory Anatomy and Anatomy Physiology I and Anatomy Physiology I	4
BIOL 225	Human Physiology*	4	HLSC 160 & N 160 & NURSE 160	Anatomy and Physiology II and Anatomy and Physiology II and Anatomy/ Physiology II	4

OR

One semester of anatomy and physiology with lab, 4 credit hours

BIOL 144	Human Anatomy and Physiology*	5			
BIOL 145	Human Anatomy and Physiology Dissection*	1			

One semester of mathematics (calculus, precalculus, additional statistics, college algebra or trigonometry)

MATH 171	College Algebra*	3	MATH 110	"Math, Its Form and Impact"	3
MATH 172	Trigonometry*	3	MATH 125	Calculus I	4
MATH 173	Precalculus*	5	MATH 120	Precalculus	5
MATH 241	Calculus I*	5	MATH 210	Calculus I	4
MATH 242	Calculus II*	5	MATH 220	Analytic Geometry Calc I	4



One semester of statistics (quantitative-based)

MATH 201	Statistics*	3	STAT 235	Elementary Statistics	3
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One medical terminology course

HC 130	Medical Terminology for Healthcare Professions (Transfer: HLSC 125 Medical Terminology)	3
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