



Johnson County Community College
Transfer Program to the University of Missouri-Kansas City
School of Science and Engineering
Division of Natural and Built Environment
2023-2024 Catalog

Contact: School of Science &
Engineering
Phone: 816-235-2399
Email: sse@umkc.edu
Homepage:
<https://sse.umkc.edu>

The Associate of Science degree (A.S.) at JCCC is designed as a transfer degree. Student pursuing the A.S. may select courses that satisfy both the A.S. degree requirements and lower-division requirements for a bachelor's degree at four-year institutions. The 27 credit hours of electives within the A.S. allows students to complete additional general education and lower division courses required for specific majors. The A.S. degree requires the completion of 60 credit hours; please see [JCCC A.S. degree requirements](#). **Meeting with a JCCC counselor is strongly recommended for the selection of appropriate courses.**

The Division of Natural and Built Environment UMKC offers the following degrees:

- Bachelor of Arts:
 - [Urban Planning and Design](#)
 - [Environmental Studies](#)
- Bachelor of Science
 - [Civil Engineering](#)
 - Earth and Environmental Sciences
 - [Environmental Science Emphasis](#)
 - [Geology Emphasis](#)
 - [Physical Geography Emphasis](#)

All UMKC undergraduate degrees require at least 120 credit hours, some programs may require more hours. Students must complete at least 30 credit hours at UMKC and at least 12 upper-division credit hours in their major department/program at UMKC to be eligible to receive an undergraduate degree from UMKC.

General UMKC Transfer Admission Requirements

- 2.25 or higher cumulative GPA (Students between 2.0-2.24 will have the opportunity to petition. Please contact Nate Jacobs in UMKC Admissions for the full policy).

*Credit/no credit may only be applied to elective coursework and will not apply towards UMKC's general education core or major requirements. (UMKC did allow Credit/No-credit or Pass/Fail for Spring 2020 coursework. Please see the specific program for transfer guidelines.)

- Equivalent courses can be repeated but all grades will be averaged for GPA calculation purposes and students will only receive credit for one attempt.
- Full transfer admission requirements can be found at: <https://www.umkc.edu/transfer/apply.html>

School of Science and Engineering Transfer Admission Requirements

- School of Science & Engineering admission requirements vary by major. Please visit <https://sse.umkc.edu/admissions/transfer-students.html> to read about the requirements for your program.

General Education Requirements for Transfer students:

All UMKC undergraduate students complete general education requirements. Completing an Associate of Arts (A.A.) degree or the Associate of Science (A.S.) in General Sciences at JCCC will satisfy all general education requirements at UMKC, including the Constitution requirement. The A.S. is a better option for most students wanting to transfer into SSE. JCCC students transferring to UMKC without completing the A.A. or A.S. will have the option to elect to complete either the UMKC Essentials or the Missouri Transfer (MOTR) Core 42 curriculum to meet general education requirements.

^To learn more about these two options and UMKC general education requirements, including how transfer coursework applies to specific general education requirements, please refer to <https://www.jccc.edu/student-resources/academic-counseling/transfer/files/transfer-guides/umkc-general-education.pdf>

It is the STUDENT'S RESPONSIBILITY to check for updates to all transfer information. This transfer guide is provided as a service and is updated as needed. Degree requirements at the four-year colleges are subject to change by those institutions. To ensure you have the most accurate up to date information about the program, it is imperative you meet with an advisor at the transfer institution.

Major/Course	UMKC Course	JCCC Course	Req. Fulfilled
Urban Planning and Design (BA)			
Precalculus Algebra	MATH 110	MATH 171 College Algebra*	Major Req ^Gen Edu
Prin. of Macroeconomics OR Prin. of Microeconomics	ECON 201 OR ECON 202	ECON 230 Principles of Macroeconomics OR ECON 231 Principles of Microeconomics	Major Req ^Gen Edu
Elementary Statistics	STAT 235	MATH 181 Statistics*	Major Req
Understanding the Earth with Lab	ENV-SCI 110R AND ENV-SCI 110L	GEOS 140 Physical Geography AND GEOS 141 Physical Geography Lab*	Major Req
Choose two of the following courses			
Foundation Digital Design	ART 114	ART 138 Digital Imaging for Artists I	Prof. Elective
Foundation 2D Design	ART 121	ART 124 Design 2D	Prof. Elective
Second Year Chinese I OR Second Year French I OR Second Year German I OR Second Year Spanish I	CHINESE 211 OR FRENCH 211 OR GERMAN 211 OR SPANISH 211	FL Level II *	Prof. Elective
Problem Solving and Programming I	COMP-SCI 101	CS 200 Concepts of Programming Algorithms Using C++*	Prof. Elective
Introduction to Women's, Gender, and Sexuality Studies	REGS 204	WGS 201 Global Women's Studies	Prof. Elective
Environmental Studies (BA)			
Choose one of the following courses:			
Understanding The Earth with Lab	ENV-SCI 110R AND ENV-SCI 110L	GEOS 140 Physical Geography AND GEOS 141 Physical Geography Lab*	Major Req ^Gen Edu
General Geology with Lab	GEOLOGY 220 AND GEOLOGY 220L	GEOS 130 General Geology	Major Req ^Gen Edu
Take each of the following courses			
Precalculus Algebra	MATH 110	MATH 171 College Algebra*	Major Req ^Gen Edu
Elementary Statistics	STAT 235	MATH 181 Statistics*	Major Req
Foreign Language Level I	FL 110	FL Level I	Major Req ^Gen Edu
Foreign Language Level II	FL 120	FL Level II *	Major Req ^Gen Edu
Civil Engineering (BS)			
Physics for Scientists and Engineers I	PHYSICS 240	PHYS 220 Engineering Physics I*	Major Req
Physics for Scientists and Engineers II	PHYSICS 250	PHYS 221 Engineering Physics II**	Major Req
Calculus I	MATH 210	MATH 241 Calculus I*	Major Req
Calculus II	MATH 220	MATH 242 Calculus II*	Major Req
Calculus III	MATH 250	MATH 243 Calculus III*	Major Req
Ordinary Differential Equations	MATH 345	MATH 254 Differential Equations*/***	Major Req
General Chemistry I** AND with Lab	CHEM 211 AND CHEM 211L	CHEM 124 General Chemistry I* AND CHEM 125 General Chemistry I Lab*	Major Req ^Gen Edu
Engineering Computation	E&C-ENGR 216	CS 200 Concepts of Programming Algorithms Using C++*	Major Req
Elementary Statistics	STAT 235	MATH 181 Statistics*	Major Req
Engineering Statics	CIV-ENGR 275	ENGR 251 Statics*	Major Req
General Biology I OR General Geology	BIOLOGY 108 OR GEOLOGY 220	BIOL 135 Prin. of Cell and Molecular Biology OR GEOS 130 General Geology	Major Req
Engineering Dynamics	MEC-ENGR 285	ENGR 254 Dynamics*	Major Elective

Earth and Environmental Sciences (BS) – Environmental Science Emphasis			
Precalculus Algebra	MATH 110	MATH 171 College Algebra*	Major Req ^Gen Edu
Elementary Statistics	STAT 235	MATH 181 Statistics*	Major Req
General Chemistry I with Lab	CHEM 211 AND CHEM 211L	CHEM 124 General Chemistry I* AND CHEM 125 General Chemistry I Lab*	Major Req ^Gen Edu
General Chemistry II with Lab	CHEM 212R AND CHEM 212LR	CHEM 131 General Chemistry II* AND CHEM 132 General Chemistry II Lab*	Major Req
Pick one of the two following sequences:			
General Biology I with Lab AND General Biology II with Lab	BIOLOGY 108 & 108L AND BIOLOGY 109 & 109L	BIOL 135 Principles of Cell and Molecular Biology AND BIOL 150 Biology of Organisms*	Major Req ^Gen Edu (only BIOLOGY 108)
General Physics I AND General Physics II	PHYSICS 210 AND PHYSICS 220	PHYS 130 College Physics I* AND PHYS 131 College Physics II*	Major Req ^Gen Edu (only PHYSICS 210)
Pick one of the following courses:			
Understanding the Earth with Lab OR General Geology with Lab	ENV-SCI 110R & ENV-SCI 110L OR GEOLOGY 220 & 220L	GEOS 140 Physical Geography AND GEOS 141 Physical Geography Lab* OR GEOS 130 General Geology	Major Req
Earth and Environmental Sciences (BS) – Geology Emphasis			
Precalculus AND Calculus I	MATH 120 AND MATH 210	MATH 173 Precalculus* AND MATH 241 Calculus I*	Major Req ^Gen Edu
General Chemistry I with Lab	CHEM 211 AND CHEM 211L	CHEM 124 General Chemistry I* AND CHEM 125 General Chemistry I Lab*	Major Req ^Gen Edu
General Chemistry II with Lab	CHEM 212R AND CHEM 212LR	CHEM 131 General Chemistry II* AND CHEM 132 General Chemistry II Lab*	Major Req
General Physics I	PHYSICS 210	PHYS 130 College Physics I*	Major Req ^Gen Edu
General Physics II	PHYSICS 220	PHYS 131 College Physics II*	Major Req
General Geology with Lab	GEOLOGY 220 & 220L	GEOS 130 General Geology	Major Req
Earth and Environmental Sciences (BS) – Physical Geography Emphasis			
Precalculus Algebra	MATH 110	MATH 171 College Algebra*	Major Req ^Gen Edu
Elementary Statistics	STAT 235	MATH 181 Statistics*	Major Req
General Chemistry I with Lab	CHEM 211 AND CHEM 211L	CHEM 124 General Chemistry I* AND CHEM 125 General Chemistry I Lab*	Major Req ^Gen Edu
General Chemistry II with Lab	CHEM 212R AND CHEM 212LR	CHEM 131 General Chemistry II* AND CHEM 132 General Chemistry II Lab*	Major Req
Pick one of the two following sequences:			
General Biology I with Lab AND General Biology II with Lab	BIOLOGY 108 & 108L AND BIOLOGY 109 & 109L	BIOL 135 Principles of Cell and Molecular Biology AND BIOL 150 Biology of Organisms*	Major Req ^Gen Edu (only BIOLOGY 108)
General Physics I AND General Physics II	PHYSICS 210 AND PHYSICS 220	PHYS 130 College Physics I* AND PHYS 131 College Physics II*	Major Req ^Gen Edu (only PHYSICS 210)
Pick one of the following courses:			
Understanding the Earth with Lab	ENV-SCI 110R AND ENV-SCI 110L	GEOS 140 Physical Geography AND GEOS 141 Physical Geography Lab*	Major Req
General Geology with Lab	GEOLOGY 220 & 220L	GEOS 130 General Geology	Major Req

*JCCC course has a prerequisite or corequisite.

** Denotes courses that must be completed with a grade of “C-“ or above.

***Meets the requirement for the engineering degree, but will not count towards a major or minor in Math.