

Johnson County Community College Transfer Program to University of Kansas School of Engineering Civil Engineering, B.S. 2024-2025 Catalog Contact: School of Engineering

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## \*\*To graduate in four years, a student must transfer to KU after one year at JCCC.\*\*

Civil engineering (CE), the oldest and broadest of the divisions of engineering, implements a range of public and private projects for improving society's physical infrastructure and the environment. The civil engineer integrates scientific principles with engineering experience to plan, design, and construct networks of highways and railroads, airports, bridges and dams, environmental pollution control systems, industrial structures, water purification and distribution systems, and urban transportation systems that maintain, protect, and enhance the quality of life. Civil engineers are trained to consider the social effects as well as the physical and environmental factors that constrain the planning, design, construction, and operation of their projects. Environmental engineering, a technical specialization with its origins in civil engineering, is a growing discipline dedicated to the protection of the environment.

- Admission to The University of Kansas is required, along with the following, for admission to the KU School of Engineering as a transfer student:
  - 1. 2.5+ cumulative college GPA
  - 2. "C" or better in MATH 125 Calculus I, or its direct equivalent (MATH 241 Calculus I\* at JCCC)
  - 3. "C" or better in all math, science and engineering coursework
- Application deadline for the School of Engineering is May 1 for summer and fall: December 1 for spring. Visit engr.ku.edu/admission.
- Admission is selective. Meeting minimum requirements does not guarantee admission.
- Timely completion of prerequisite courses is imperative due to tight sequencing of major courses. Consult KU catalog and seek KU advising early.
- The B.S. in Civil Engineering is an ABET accredited program.
- A total of 128 credit hours is required for the B.S. in Civil Engineering. Students may identify broad concentrations in either general civil engineering or environmental engineering. Within these, students may choose elective courses to permit additional exposure to selected areas of civil or environmental engineering such as transportation, structural, geotechnical, environmental, and water resource engineering. In environmental engineering, electives may be selected to focus on water quality and treatment, bioremediation, solid and hazardous wastes, air quality, and air pollution control.
- Sixty-four credits may be transferred to KU from community colleges. The last 30 hours of course work must be completed at KU. A minimum of 45 upper-level hours must be completed at KU.
- Transfer students will have their applications to the School of Engineering evaluated on a case-by- case basis and must have a minimum GPA of 2.5 to be considered.
- Transfer credits must have a grade of "C" or higher to be applied toward the degree.
- Pass/Fail policy: not allowed for any courses in Civil Engineering.
- Students must take the Fundamentals of Engineering (FE) Exam prior to graduation.
- Effective Fall 2024: Students transferring to KU, with an AA, AFA or AS degree from JCCC will be considered to have satisfied KU's Core 34 general education curriculum.
- Effective Fall 2024: Students who transfer to KU, without completing AA, AFA or AS degree will have courses
  evaluated on a course-by-course basis toward meeting KU requirements. To learn more about courses that satisfy KU
  Core 34 requirements visit: https://catalog.ku.edu/core34/ and https://credittransfer.ku.edu/
- KU's Core 34 General Education guide can be found here: <a href="https://www.jccc.edu/student-resources/transfer/files/transfer-guides/ku-core-requirements.pdf">https://www.jccc.edu/student-resources/transfer/files/transfer-guides/ku-core-requirements.pdf</a>

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.

## **Program Requirements**

KU Courses	Hrs	JCCC Courses (Note: 64 hrs may transfer from JCCC)	Hrs	KU Core 34
KU Core 34				
Core 34: English	6	See KU Core 34 General Education guide	6	ENG
Core 34: Communications	3	See KU Core 34 General Education guide	3	CMS
Core 34: Social and Behavioral Science (Select two	6	See KU Core 34 General Education guide	6	SBS
courses in two different disciplines – 6 hrs. total)				
ECON 144 Principles of Macroeconomics# <b>OR</b>		ECON 230 Principles of Macroeconomics# <b>OR</b>		
ECON 142 Principles of Microeconomics#		ECON 231 Principles of Microeconomics#		
Core 34: Arts and Humanities	6	See KU Core 34 General Education guide	6	AH
(Select two courses in two different disciplines)			_	
Core 34: US Culture – Institutionally Designated	3	See KU Core 34 General Education guide	3	USC
Core 34: Global Culture - Institutionally Designated	3	See KU Core 34 General Education guide	3	GLBC
Mathematics				
MATH 125 Calculus I#	4	MATH 241 Calculus I*#	5	MTS
MATH 126 Calculus II	4	MATH 242 Calculus II*	5	N/A
MATH 127 Calculus III	4	MATH 243 Calculus III*	5	N/A
MATH 220 Applied Differential Equations	3	MATH 254 Differential Equations*	4	N/A
Basic Sciences				
EPHX 210 General Physics I for Engineers# AND	3/1	PHYS 220 Engineering Physics I*^	5	NPS/
PHSX 216 General Physics I Lab# OR				NLEC/
PHSX 210 General Physics I^ AND				NLAB
PHSX 216 General Physics I Lab OR				
PHSX 211 General Physics I# AND				
PHSX 216 General Physics I Lab				
(Must earn a grade of "C-" or better)				
PHSX 212 General Physics II	3	PHYS 221 Engineering Physics II*	5	NPS/NLEC/
				NLAB
CHEM 150 Chemistry for Engineers	5	CHEM 124/125 General Chemistry I*/Lab* AND	4/1	NPS/NLEC/
		CHEM 131/132 General Chemistry II*/Lab*	4/1	NLAB
Science Elective:				NPS/NLEC/
BIOL 100 Principles of Biology	3	BIOL 121 Introductory Biology for Non-Majors	4	NLAB
Basic Engineering Sciences				
CE 320 Numerical Methods for Civil Engineering	3	CS 235 Object-Oriented Programming Using C++*	4	N/A
<b>OR</b> EECS 138 Introduction to Computing	3			
CE 260 Statics & Dynamics	5	ENGR 251 Statics* AND	3	N/A
		ENGR 254 Dynamics*	3	
ARCE 217 Computer-Assisted Building Design	3	DRAF 129 Interpreting Architectural Drawings AND	2	N/A
		DRAF 143 Introduction to BIM Building Information	2	·
		Modeling*		

<sup>\*</sup>JCCC course has a prerequisite or corequisite.

**Note:** To graduate in four years, a student must transfer to KU after one year at JCCC. It is not recommended for students to complete an associate degree at JCCC. Completing an associate degree may add up to four (4) additional years to complete your KU Engineering degree.

<sup>^</sup>PHSX 211 (PHYS 220 at JCCC) satisfies the PHSX 210 requirement for Engineering at KU. Please note PHSX 210 is the preferred course. #This course is a Required Core 34: Systemwide General Education course. This program is approved by the Kansas Board of Regents to require this specific Core 34: Systemwide General Education course. If a student did not take this course, it must be taken in addition to other degree requirements.