

Johnson County Community College Transfer Program to the University of Kansas School of Engineering Mechanical Engineering, B.S. 2023-2024 Catalog Contact: School of Engineering

Phone: 785-864-3181 Email: kume@ku.edu

Home Page: www.me.engr.ku.edu

The broad discipline of mechanical engineering enables students to have productive and rewarding careers, and to develop and improve new technologies in both traditional and emerging fields. Mechanical engineers apply fundamental principles to develop, design, manufacture, and test machines and other mechanical devices. Such devices include but are not limited to power-producing machines as well as power-consuming machines. Mechanical engineers are employed in diverse areas including but not limited to: the energy and power industries, the automotive and aerospace industries, and industrial manufacturing. Mechanical Engineering graduates also have careers in medicine and medical device development, patent law, engineering and corporate management, forensic engineering, and engineering sales.

- 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
- The School of Engineering recommends that students apply for transfer admission to KU by May 1 for summer and fall; December 1 for spring.
- 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 Mechanical Engineering is an ABET accredited program. A concentration in Biomechanics is available.
- A total of 128 credit hours is required for the B.S. in Mechanical Engineering.
- 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: only accepted for KU Core GE 2.1 Written Communication, GE 2.2 Oral Communication, GE 3H Humanities, GE 3S Social Sciences, AE 4.1 Human Diversity, AE 4.2 Global Awareness, and AE 5 Social & Ethical Responsibility. If an Engineering department recommends that certain course work be used to fulfill any of these requirements, those courses must be taken for an "A"-"F" grade.
- NOTE: Classes may count for a major requirement and a core requirement but may NOT count for 2 different core requirements.

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	Hrs	<b>KU Core</b>
KU Core				
ENGL 101 Composition	3	ENGL 121 Composition I*	3	GE 2.1
ENGL 102 Critical Reading and Writing	3	ENGL 122 Composition II*	3	GE 2.1
COMS 130 Speaker Audience Comm.	3	COMS 121 Public Speaking	3	GE 2.2
ECON 104 Introductory Economics OR	3	ECON 132 Survey of Economics OR	3	GE 3S
ECON 144 Principles of Macroeconomics OR		ECON 230 Principles of Macroeconomics OR		
ECON 142 Principles of Microeconomics		ECON 231 Principles of Microeconomics		
KU Core Goal GE 3H Arts & Humanities	3	Click here for Goal GE 3H	3	GE 3H
KU Core Goal AE 4.1 Human Diversity	3	Click here for Goal AE 4.1	3	AE 4.1
KU Core Goal AE 4.2 Global Perspective	3	Click here for Goal AE 4.2	3	AE 4.2
PHIL 160 Introduction to Ethics	3	PHIL 143 Ethics	3	AE 5.1
General Electives	6	Click here for equivalent electives	6	N/A
		https://credittransfer.ku.edu		
Mathematics and Basic Sciences				
MATH 125 Calculus I	4	MATH 241 Calculus I*	5	GE 1.2
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
MATH 290 Elementary Linear Algebra	2	MATH 246 Elementary Linear Algebra*	3	N/A
MATH 365 Elementary Statistics	3	MATH 181 Statistics*	3	GE 1.2
ME 508 Numerical Analysis of Mechanical Engineering Problems	3	No equivalent		N/A
CHEM 150 Chemistry for Engineers	5	CHEM 124/125 General Chemistry I*/Lab* AND	4/1	GE 3N
· · ·		CHEM 131/132 General Chemistry II*/Lab*	4/1	
EPHX 210 <sup>^</sup> General Physics I for Engineers	3/1	PHYS 220 Engineering Physics I*	5	GE 1.1,
AND PHSX 216 General Physics I Lab				1.2, 3N
PHSX 212/236 General Physics II/Lab	3/1	PHYS 221 Engineering Physics II*	5	GE 3N
Mechanical Engineering				
ME 320 Dynamics	3	ENGR 254 Dynamics*	3	N/A
Additional required courses will be taken at KU.				

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

**KU Core Requirements** The KU Core comprises three general education goals and three advanced education goals. The general education goals are best met early in a student's career. The advanced education goals are most appropriately acquired using the foundation of knowledge gained from the general education goals and progression through the major. Courses can be used to satisfy one Core goal at a time, but may satisfy a major requirement and a core goal. To learn more about courses that satisfy the KU Core visit: <a href="https://credittransfer.ku.edu">https://credittransfer.ku.edu</a>

<sup>^</sup>PHSX 211 (PHYS 220 at JCCC) satisfies the EPHX 210 and PHSX 216 requirement for Engineering at KU