

Industrial Engineering

University of Missouri - Columbia

Johnson County Community College Transfer Program to the University of Missouri - Columbia	Engineering Advising Office
College of Engineering	(573) 884-6961
Industrial Engineering, BSIE	muengradvising@missouri.edu
Academic Year 2025-2026	https://catalog.missouri.edu/collegeofengineering/industrialengineering/#undergraduatetext

Program Description

The Bachelor of Science in Industrial Engineering has a core engineering curriculum during the first two years. This curriculum's objective is to give the student a rigorous foundation in mathematics, natural sciences, basic engineering sciences, applied probability, and computer science, as well as complementary and meaningful exposure to the humanities and social sciences.

Building on the core courses, students gain knowledge of optimization methodologies, human factors, data analytics, and systems modeling. They also learn to model and evaluate integrated systems of people, technology, and information in the areas of production and service system design, supply chain design and management, control systems, quality systems, sustainability, data engineering, product, and process design.

Students also have the opportunity to obtain Lean Six Sigma Green Belt certification and/or an interdisciplinary Global Supply Chain Management certificate while completing the program requirements.

Major Program Requirements - Students earning a Bachelor of Science in Industrial Engineering are required to complete all University general education (<https://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/>), University graduation requirements (<https://catalog.missouri.edu/academicdegreerequirements/universityrequirements/>), degree, and major requirements, including selected foundational courses, which may fulfill some University general education requirements. The curriculum is designed so that over half of the course work for the degree is completed in ENGR/ISE or professionally related courses.

Visit the JCCC/MU General Education guide (<https://www.jccc.edu/student-resources/transfer/files/transfer-guides/mu-gen-ed-reqs.pdf>) for equivalent courses.

Transfer Students -

Students wishing to transfer to MU from an accredited college or university are subject to University regulations described in this catalog. The College of Engineering cooperates with many colleges through articulation agreements that help students transfer to MU with maximum ease and minimum loss of credits. A student may contact the College of Engineering Admissions Office to determine if their home institution participates in an agreement with the College of Engineering. Students who have completed all courses specified in the articulation agreement will be admitted into their desired degree program. All other transfer students are admitted on program discretion. Typically, transfer students with freshmen status must satisfy the same requirements as students entering college for the first time. Other students are admitted only after review of their transcript.

To be recommended for a BS degree from the College of Engineering, a student transferring from an accredited institution must complete at least 30 upper-level credits in the degree program at a UM System campus. At least 21 of the 30 credits must be upper-level engineering courses approved by the department awarding the degree. A student transferring with senior standing from another UM System campus must complete the last 15 credits in residence on the campus where the degree program is located. Twelve of these 15 credits must be in engineering and approved by the department awarding the degree.

Any student whose enrollment in any college-level academic program resulted in dismissal, departure or who is on probation will not be admitted to the College of Engineering.

International Admission -

International undergraduate students interested in studying in the College of Engineering can visit the MU Office of International Admissions (<https://admissions.missouri.edu/apply/international/>) for information on academic and English language admission requirements. Any questions regarding international student admissions (<https://catalog.jccc.edu/transferadmin/192/inter@missouri.edu>) can be directed to that office.

GPA Requirements for Graduation from the College of Engineering:

- GPA of record of at least 2.0
- GPA of at least 2.0 in all engineering courses offered by one of the four campuses of the UM System. "Engineering courses" include all courses that are offered through the College of Engineering or its equivalent on the four campuses, or that have "Engineering" in the curricular designator. Only the last grade in a repeated course will be used in the calculation.

Industrial Engineering Transfer Requirements:

Core requirements

Course Code Code	Course Title Title	Course Hours	Transfer Code Hours	Transfer Title	Transfer Hours
CHEM 124 & CHEM 125	General Chemistry I Lecture* and General Chemistry I Lab*	4/1	CHEM 1400 & CHEM 1401	College Chemistry I and College Chemistry I Lab	1
ECON 231	Principles of Microeconomics	3	ECONOM 1014 & ECONOM 4	Principles of Economics 3 and Principles of Microeconomics	3
ENGR 121	Engineering Orientation	2	ENGINR 1000	Introduction to Engineering	1
ENGR 251	Statics*	3	ENGINR 1200	Statics Elem Strength of Mat	3
MATH 241	Calculus I*	5	MATH 1500 & MATH 1500H	Analytic Geometry/ Calculus I and Analytic Geometry Calc I	5
MATH 242	Calculus II*	5	MATH 1700	Calculus II	5
MATH 243	Calculus III*	5	MATH 2300	Calculus III	3
MATH 246	Elementary Linear Algebra*	3	ISE 2210		
MATH 254	Differential Equations*	4	MATH 4100	Differential Equations	3
PHYS 220	Engineering Physics I*	5	PHYSCS 2750	University Physics I	5
PHYS 221	Engineering Physics II*	5	PHYSCS 2760	University Physics	5



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* JCCC course has a prerequisite or corequisite.

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