

BACHELOR OF SCIENCE IN CIVIL ENGINEERING, 2024-25

For more information about policies and requirements, please see the UMKC 2024-25 Catalog.

FIRST YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
MATH 266 Accelerated Calculus I	4	MATH 268 Accelerated Calculus II	3
CHEM 211/211L General Chemistry I/Lab	5	PHYSICS 240 Physics for Scientists & Engineers I	5
CIV-ENGR 111 First Year Cornerstone	1	MEC-ENGR 130 Engineering Graphics	3
ENGLISH 110 English I: Intro Academic Prose	3	ENGLISH 225 English II: Intermed Academic Prose	3
GEFSE 101 First Semester Experience	3	GECRT-SS Critical Thinking in Behavioral & Social Sciences	3
TOTAL	16	TOTAL	17

SECOND YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
MATH 250 Calculus III	4	MATH 345/345L Ordinary Differential Equations/Lab	4
PHYSICS 250 Physics for Scientists & Engineers II	5	CIV-ENGR 190 Special Topics	1
CIV-ENGR 113 Engineering Measurements	1	CIV-ENGR 276 Strength of Materials	3
CIV-ENGR 275 Engineering Statics (Meets GECRT-SC req)	3	CIV-ENGR 351 Fluid Mechanics	3
E&C-ENGR 216 Engineering Computation	4	Communication Requirement (COMM-ST 110, 140, 212 or 277)	3
		GECRT-AH Critical Thinking in Arts & Humanities	3
TOTAL	17	TOTAL	17

THIRD YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
Basic Science Requirement	3	CIV-ENGR 323 Structural Steel Design*	3
(GEOLOGY 220 or BIOLOGY 108 recommended)			
STAT 235 Elementary Statistics	3	CIV-ENGR 378WI Civil Engineering Materials**	3
CIV-ENGR 321 Structural Analysis	4	CIV-ENGR 497 Engineering Hydrology	3
CIV-ENGR 335 Soil Mechanics	3	Constitution Requirement	3
		(HIST 101 OR 102; POL-SCI 210, CJC 364, or HON 230)	
CIV-ENGR 467 Construction Management	3	GECDV Culture & Diversity	3
TOTAL	16	TOTAL	15

FOURTH YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
CIV-ENGR 411 System Design I	2	CIV-ENGR 412 System Design II (Meets GECUE	3
		req)	
CIV-ENGR 422WI Reinforced Concrete	3	CIV-ENGR 481 Intro to Transportation*	3
CIV-ENGR 432 Foundation Engineering	3	CIV-ENGR 342 Intro to Environmental Engineering**	3
CIV-ENGR Elective	3	CIV-ENGR Elective	3
CIV-ENGR Elective	3	CIV-ENGR Elective	3
TOTA	L 14	TOTAL	15

Additional Graduation Requirements: Civics Exam, OSHA 10-Hour Training, HEIghten Exit Exam.

Total Credits to Graduate: 127

CIV-ENGR Elective Interest Areas: Structural; Water Resources; Geotechnical & Materials; Construction Management; General.

^{*}These courses can be interchanged between Spring semesters.

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School of Science and Engineering

Why Major in Civil Engineering



Beyond The Classroom

Students build experience by participating in any of our **student-led teams or organizations**:

- American Society of Civil Engineers (ASCE)
- Association of Environmental and Engineering Geologists
- Concrete Canoe
- National Society of Black Engineers (NSBE)
- Society of Hispanic Professional Engineers (SHPE)
- Society of Women Engineers (SWE)
- UMKC Robotics

Students design and build their own **off-road vehicle**, **unmanned aircraft**, **robot**, **or concrete canoe** to compete against other universities in our student-led teams.

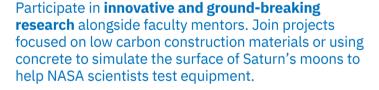
Our **Civil Engineering degree is ABET accredited** ensuring our curriculum meets the standards to prepare graduates for industry and professional advancement.



Personalize Your Degree

Our **BS Civil Engineering degree includes specialized major electives** allowing students to expand upon their interests in areas like:

- construction law
- environmental compliance
- hydraulic structures
- project management
- · structural design



UMKC was awarded a **\$10** million federal grant from the US Department of Transportation to develop innovative approaches to improve the sustainability and equity of transportation infrastructure.



After Graduation

SSE connects students with industry partners in the area through **information sessions** and two **STEM Career Fairs** every year.

The Kansas City region has **one of the top five architecture and engineering concentrations** in the nation with access to companies like:

 Black & Veatch, Burns & McDonnell, HDR, HNTB, Kiewit, McCown Gordon, Olsson, Terracon, and many more! The **demand for engineering jobs** in the Kansas City area has **grown at more than twice** the national average.

Easily earn a **master's degree** through our BS to MS program which allows students to complete a graduate degree at undergraduate tuition rates.

UMKC's location and connection with the Kansas City area offers Civil Engineering students ease of access to **year-round internships and future employment.**

