



Major Map: BS Civil Engineering

Catalog Year: 2013-2014

The following is a sample course of study. It is the Student's responsibility to ensure that all program requirements are met. This guide is not a substitute for academic advisement. For more information you may go to our website at www.sce.umkc.edu or the catalog at www.umkc.edu/catalog

Please note this Program of Study is pending final approval of the CME faculty.

Your path to graduation may vary slightly based on factors such as college credit you earned while in high school, transfer work from other institutions of higher learning and placement in Mathematics. You are responsible for checking prerequisites to any courses.

First Mathematics: Calculus I

2nd Language Requirement: Not Required

Free Elective Hours: None

Bench Mark/ Critical Course	Course Subject, Number, Title and Academic Plan Benchmarks Bold=UMKC General Education Core Requirement *Prerequisites are Required **Co-Requisite Enrollment Required	Credit Hours	Min Required Grade	Additional Critical Tracking Notes
	Completion of English 110 (English Comp I) or ComSt 110 (Speech) or equivalents; SAT verbal 690; ACT English 30 or AP English Language/composite score of 4.2 will waive the Discourse I requirement .			
◆	Students must have passed ("C" or better) Pre-calculus or a combination of a College Algebra and Trigonometry or have taken four (4) units of high school mathematics including trigonometry in high school.			
	Fall Semester Year 1: 16 hours			
◆	CHEM 211: General Chemistry I AND CHEM 211L: General Chemistry I Lab	4 1	C C	
	MATE 111 Machine Shop Safety (Skills)	1	C	Pending Approval
◆	MATH 210: Calculus I ²	4	C	Math Entrance Test Requirement²
	**Discourse I: DISC 100 - Reasoning and Values¹ (Speech and Writing)	3	C	
	**Anchor I: Reasoning and Values¹ – SCE 101 Computing, Engineering & Society	3	C	
	Complete of 16 term credit hours. Earn minimum 2.000 term GPA Earn minimum 2.000 cumulative UM GPA			
	Spring Semester Year 1: 18 hours			
◆	MATH 220: Calculus II	4	C	
◆	Focus B: Scientific Reasoning & Quantitation Analysis¹ - PHYSICS 240: Physics for Science & Engineering I	5	C	PHYS 240 required for degree
	CIV-ENGR 1XX: Design I (New)	3	C	Pending Approval
	**Discourse II: DISC 200 - Culture and Diversity¹ (Speech and Writing)	3	C	
	**Anchor II: Culture and Diversity CE 2XX Engineering & Money (New)	3	C	Pending Approval
	Complete Discourse I and Anchor I Complete of 18 term and 34 cumulative credit hours toward degree requirements Earn minimum 2.000 term GPA Earn minimum 2.000 cumulative UM GPA			
	Summer Semester Year 2: 0 hours			
				May use summer semester ensure completion of 34 hours or to lighten fall and winter course loads
	Fall Semester Year 2: 17 hours			
◆	**MEC-ENGR 270: Engineering Analysis I or MATH 250 Calculus III	4	C	
◆	**CIV-ENGR 275: Engineering Statics	3	C	
◆	MEC-ENGR 219: Computer Programming for Engineers	3	C	
◆	CIV-ENGR 2XX: Surveying (Skills) (New)	2	C	Pending Approval
◆	Focus Elective - PHYSICS 250: Physics for Science & Engineering II¹	5	C	PHYSICS 250 required for degree
	Complete of 17 term credit hours Earn minimum 2.000 term GPA Earn minimum 2.000 cumulative UM GPA			
	Spring Semester Year 2: 16 hours			
	MEC-ENGR 272: Engineering Analysis II or MATH 345 Ordinary Diff Equations	4	C	
◆	CIV-ENGR 276: Strength of Materials	3	C	
◆	CIV-ENGR 221: Introduction to Instruments	3	C	
◆	CIV-ENGR 2XX: Civil Engineering Graphics (New)	3	C	Pending Approval



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◆	Focus C- Human Values & Ethical Reasoning ^{1,4}	3	C	HIST 1100, 1101 OR POL-SCI 210 CONST REQUIR
◆	Complete Discourse II and Anchor II Complete 16 term and 67 cumulative credit hours toward degree requirements Earn minimum 2.000 term GPA Earn minimum 2.000 cumulative UM GPA			
Summer Semester Year 3: 0 hours				
				May use summer semester ensure completion of 33 hours per academic year or to lighten fall and winter course loads.
Fall Semester Year 3: 16 hours				
	CIV-ENGR 319: Engineering Computation and Statistics	3	C	Apply for graduation
	Anchor III: Civic & Community Engagement CIV-ENGR 378 Civil Engineering Materials	3	C	Pending Approval
	Discourse III: DISC 300 – Civic and Community Engagement (Speech and Writing) ¹	3	C	
	CIV-ENGR: 351 Fluid Mechanics	3	C	
	CIV-ENGR: 321 Structural Analysis	4	C	
◆	Complete RooWriter Writing Assessment Completion of 16 term credit hours. Must earn minimum 2.000 term and cumulative UM GPA.			
Spring Semester Year 3: 15 hours				
	CIV-ENGR 323: Steel Design	3	C	
	CIV-ENGR 342: Water and Wastewater	3	C	
	CIV-ENGR 497: Engineering Hydrology	3	C	
	CIV-ENGR 335: Soil Mechanics	3	C	
	CIV-ENGR 467: Construction Management	3	C	Assessment Test ⁵
	Completion of 15 term and 98 cumulative credit hours at the end of spring semester year 3. Must earn a minimum 2.000 term and cumulative UM GPA.			
Fall Semester Year 4: 14 hours				
	**CIV-ENGR 411: System Design I	2	C	
	**CIV-ENGR 422: Reinforced Concrete	3	C	
	CIV-ENGR: Elective (See Tracks)	3	C	
	CIV-ENGR: Elective (See Tracks)	3	C	
	Completion of 14 term credit hours. Must earn a minimum 2.000 term and cumulative UM GPA.			
Spring Semester Year 4: 14 hours				
	CIV-ENGR 412: System Design II	2	C	UMKC Senior Exit Survey
	CIV-ENGR 481: Highway and Traffic Engineering	3	C	CIV ENGR Dept Sr Exit Degree Completion Survey
	CIV-ENGR 4XX: Elective (See Tracks)	3	C	
	CIV-ENGR 4XX: Elective (See Tracks)	3	C	
	Focus A: Arts and Humanities ¹	3	C	
	Complete 14 term and 126 cumulative credit hours. Must earn a minimum 2.000 term, major core and cumulative UM GPA.			
Total: 125 hours				

¹ All students must take or establish credit for the following General Education Course Requirements: Discourse 1, Discourse 2, Discourse 3, Anchor 1, Anchor 2, Anchor 3, Focus A, Focus B, Focus C, and Focus D for a total of 30 credit hours of GenEd. Go to www.umkc.edu/core/courses for a list of GenEd courses.

² Enrollment restricted. Students must pass the online Math Entrance Test prior to enrolling <http://cas.umkc.edu/math/>

³ RooWriter Test must be taken following the successful completion of Discourse 2 and is a requirement in order to graduate.

<http://cas.umkc.edu/writingcenter/StudentResources/WEPT.asp>

⁴ Constitution requirement may be satisfied by taking either HIST 1100 or HIST 1101 or POLSC 210

⁵ All UMKC students must take the ETS-PP or MAPP Assessment Test after completing 70 credit hours and before applying for graduation.

www.umkc.edu/testingcenter Engineering students take the Fundamentals of Engineering exam in lieu of the Major Field Exam.

<http://pr.mo.gov/engineerinterns.asp> and www.ncees.org.

Non-course requirements

- RooWriter Test
- ETS-PP or Measure of Academic Proficiency and Progress (MAPP)
- UMKC Senior Exit Survey
- Civ Engr Department Senior Exit Degree Completion Survey

Met

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The School reserves the right to make changes in courses, degree requirements, and course schedules without notice. Students are expected to maintain a quality of achievement significantly above minimum UMKC standards for degree work. Individual student progress will be monitored throughout the program. Satisfactory progress is required of all students for retention in the program. Students are expected to maintain academic standards, perform satisfactorily in courses, refrain



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from academic dishonesty, comply with the established University requirements, and refrain from unethical or unprofessional behavior or behaviors that obstruct the training process or threaten the welfare of the student or others. Other circumstances involving student behavior will be addressed by the faculty on an individual basis.

Graduation Requirements Summary:

Total Hours (126 minimum)	Totals Hrs at UMKC (30 hours min)	Major GPA (2.000 min)	UMKC GPA (2.000 min)

Academic Advisor: _____ Date: _____

Faculty Advisor: _____ Date: _____