



Major Map: BA Computer Science

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 <http://www.umkc.edu/catalog> **Please note: this Program of Study is pending final approval by the CSEE 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 & Statistics

2nd Language Requirement: Yes

Free Elective Hours: 23-25

Critical Course or Benchmark ◆	Course Subject, Number, Title and Academic Plan Benchmarks Bold=UMKC General Education Core Requirement *Prerequisites are Required **Co-Requisite Enrollment Required	Credit Hours	Min Recom Grade	Additional Critical Tracking Notes
Prior to Year 1 (may include summer)				
◆	Students must have successfully passed (with a "C" or better) MATH 110: College Algebra and MATH 125: Trigonometry or MATH 120: Pre-calculus or have taken four (4) units of high school Mathematics including Trigonometry prior to enrolling in MATH 210.			
Fall Semester Year 1: 16 hours				
	**Anchor I: Reasoning and Values¹	3		SCE 101 Preferred
	**Discourse I: DISC 100: Reasoning and Values¹	3		
	General Elective	3		
◆	MATH 210: Calculus I ²	4	C	MATH Entrance Test Req ²
◆	STAT 235: Elementary Statistics ²	3	C	MATH Entrance Test Req ²
◆	Complete 16 term credit hours Earn minimum 2.000 cumulative UM GPA Earn minimum 2.000 Major GPA			
Spring Semester Year 1: 16 hours				
	**Anchor II: Culture & Diversity¹	3		
	**Discourse II: DISC 200- Culture & Diversity¹	3		
◆	COMP-SCI 101: Problem Solving & Program I	3	C	
◆	COMP-SCI 191: Discrete Structures I	3	C	
◆	MATH 220: Calculus II	4	C	
◆	Complete 32 cumulative credit hours Earn minimum 2.000 cumulative UM GPA Earn minimum 2.000 Major GPA			
Summer Semester Year 2: 0 hours				
◆	Complete Anchor I and Discourse I			
Fall Semester Year 2: 15 hours				
◆	**COMP-SCI 201R: Problem Solving & Program II	3	C	
◆	**COMP-SCI 201L: Problem Solving & Program II Lab	1	C	
◆	COMP-SCI 291: Discrete Structures II	3	C	
	Focus C: Human Values & Reasoning - Constitution^{1, 4}	3		Constitution required for degree ⁴
	Foreign Language 110 ⁵	5		
◆	Complete 15 term credit hours Earn minimum 2.000 cumulative UM GPA Earn minimum 2.000 Major GPA			
Spring Semester Year 2: 14-16 hours				
◆	COMP-SCI 281R: Computer Architecture & Organization	3	C	
◆	COMP-SCI 303: Data Structures	3	C	
	Foreign Language 120 ⁴	5		
	Focus B: Life & Physical Science^{1, 6}	3-5		Life & Physical Science required for major
◆	Earn minimum 2.000 cumulative UM GPA Earn minimum 2.000 Major GPA Complete Discourse II and Anchor II			
Summer Semester Year 3: 0 hours				
◆	Complete 61 cumulative credit hours Earn minimum 2.000 cumulative UM GPA			



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Earn minimum 2.000 Major GPA Complete of RooWriter Assessment Test ³				
Fall Semester Year 3: 15 hours				
COMP-SCI 282: Assembler Language Programming	3	C		
Anchor III: Civic & Community Engagement¹ - COMP-SCI 304WI: Ethics & Professionalism	3	C		COMP-SCI 304WI, Ethics & Professionalism required (pending approval)
Discourse III: DISC 300 - Civic & Community Engagement¹	3			
General Elective	3			
General Elective	3			
Complete 15 term credit hours Earn minimum 2.000 cumulative UM GPA and Major GPA				
Spring Semester Year 3: 13-14 hours				
COMP-SCI/E&C ENGR/INFO TECH 300<490: CSEE/IT Elective ⁷	3	C		
Focus D Elective: Life & Physical Science⁴ -Click for Options⁶	4-5	C		Life & Physical Science required for major
General Elective 300<490	3			
General Elective 300<490	3			
Complete 13 term credit hours Complete 89 cumulative credit hours Earn minimum 2.000 cumulative UM GPA and Major GPA				
Fall Semester Year 4: 15 hours				
COMP-SCI 449: Fundamentals of Software Engineering	3	C		Apply for graduation
COMP-SCI/E&C ENGR/INFO TECH 300<490: CSEE/IT Elective ⁷	3	C		
COMP-SCI/E&C ENGR/INFO TECH 300<490: CSEE/IT Elective ⁷	3	C		
General Elective 300<490	3			
General Elective 300<490	3			
Complete 15 term credit hours Earn minimum 2.000 cumulative UM GPA and Major GPA Must take COMP-SCI 449 and COMP-SCI 451R consecutively.				
Spring Semester Year 4: 14-16 hours				
COMP-SCI/E&C ENGR/INFO TECH 400<490: CSEE/IT Elective ⁷	3	C		
COMP-SCI 441: Program Language Design & Implementation	3	C		Assessment Test & Major Field Exam⁷
COMP-SCI 451R: Software Engineering	3	C		CSEE Degree Completion Survey
Focus A, Arts & Humanities-Click for Options	3	C		
General Elective 300<490	2-4			UMKC Exit Survey
Complete 14 term credit hours Complete 120 cumulative credit hours Earn minimum 2.000 cumulative UM GPA and Major GPA				
Total: 120 hours				

¹ All students must take and/or establish credit for the following General Education Course Requirements: Discourse I, Discourse II, Discourse III, Anchor I, Anchor II, Anchor III, Focus A, Focus B, Focus C and Focus Elective for a total of 30 credit hours of General Education. See General Education Requirements list for appropriate courses. Go to: <http://www.umkc.edu/core/courses>

² Enrollment is restricted. Students must pass the online MATH Entrance Test prior to enrolling. See <http://cas.umkc.edu/MATH/> for more details.

³ RooWriter Test can be taken following the successful completion of Discourse 2, but must be taken the semester before enrolling in CS 304WI. <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 Students must take a two course sequence of one foreign language, or have taken a two year sequence at high school. If foreign language requirement is waived due to high school credit, then students need to add up to ten (10) credit hours of General Electives to total 120 credit hours total for the BA COMP-SCI degree.

⁶ Students must take one Life Science and one Physical Science course with a minimum of one lab in one or the other. Students may select from any of the following areas: Biology, Chemistry, Environmental Science, Geography, Geology, Natural Science, Physical Science or Physics.

⁷ Four CSEE electives are required. Three can be 300 level or above, but the remaining elective must be 400 level or above. Students may choose between courses from COMP-SCI, E&C-ENGR and INFO-TECH. Students may replace one CSEE/IT elective with three credit hours of Internship.

⁸ All UMKC students must take the Assessment Test and CS/IT majors must take the Major Field Exam after completing 75 credit hours and before applying for graduation. For details go to: www.umkc.edu/testingcenter

⁹ Students should plan to take two to four additional credit hours of General Elective courses to bring cumulative credit hours up to 120.

Non-course requirements

- RooWriter Assessment Test
- Measure of Academic Proficiency and Progress (MAPP)
- Major Field Exam
- UMKC Senior Exit Survey
- CSEE Degree Completion Survey

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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 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 (120 minimum)	Totals Hrs at UMKC (30 hours min)	Major GPA (2.0 min)	UM GPA (2.0 min)

Academic Advisor: _____ Date: _____

Faculty Advisor: _____ Date: _____