

Four Year Graduation Plan – Courses & Critical Benchmarks:

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 see the University Catalog at umkc.edu/catalog.

Your path to graduation may vary 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. Critical Courses and minimum recommended grades (as noted below) provide feedback regarding major fit and help indicate likelihood of successful completion of chosen academic program and degree.

Please Note: 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: Calculus I.

First Math Course:	STAT 235 Elementary Statistics OR MATH 210 Calculus I	Foreign Language Requirement:	No	General Elective Hours:	11
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Critical Course	Course Subject, Number, & Title and Academic Plan Benchmarks Bold = UMKC General Education Core requirement ** Co-Requisite Enrollment Required	Min. Rec. Grade	Credit Hours	Notes
Fall Semester Year 1: 13 hours				
◆	MATH 210 Calculus I(Focus B) ¹	C	4	¹ Enrollment restricted. Must take ALEKS Math Placement Exam or show prerequisite requirement has been met prior to enrolling.
◆	STAT 235 Elementary Statistics (Focus Elective) ¹	C	3	
	** DISC 100 Reasoning & Values (Speech & Writing) Click for options		3	
	** ANCHOR I Reasoning & Values Click for Options (ANCH 150 Computing & Engineering in Society Recommended)		3	
	General Elective		1	
Complete 14 credit hours toward degree Earn minimum 2.00 term GPA				
Spring Semester Year 1: 16 hours				
◆	MATH 220 Calculus II	C	4	Register for UMKC Roo Career Network .
◆	COMP-SCI 101 Problem Solving & Programming I	C	3	
◆	COMP-SCI 191 Discrete Structures I	C	3	
	** DISC 200 Culture & Diversity (Speech & Writing) Click for options		3	
	** ANCHOR II Culture & Diversity Click for Options		3	
Complete 16 credit hours toward degree Earn minimum 2.00 term GPA				
Summer Semester Year 1: 0-4 hours				
◆	Math 210 or STAT 235 (if not already completed)	C	3-4	Recommend completing MATH 210 or STAT 235 over the summer if tested into MATH 100.
Complete Anchor I & DISC 100 Complete at least 30 total credit hours toward degree Maintain a minimum 2.00 cumulative GPA				

Fall Semester Year 2: 15 hours				
◆	COMP-SCI-201R + 201L Problem Solving & Programming II with Lab		4	Take the RooWriter Assessment after completing DISC 200 and before reaching 90 credit hours.
◆	COMP-SCI 291 Discrete Structures II		3	
	MATH 300 Linear Algebra		3	
	PHYSICS 240 Physics for Scientists & Engineers I		5	
Complete 15 credit hours toward degree Earn minimum 2.00 term GPA				
Spring Semester Year 2: 14 hours				
◆	COMP-SCI 281R Computer Architecture & Organization		3	² HISTORY 101, 102, or POL-SCI 210 meet both Focus C & Missouri Constitution Requirements.
	COMP-SCI 303 Data Structures		3	
◆	PHYSICS 250 Physics for Scientists & Engineers II		5	
	Focus C Human Values & Ethical Reasoning Click for options (HISTORY 101, 102, or POL-SCI 210 recommended) ²		3	
	General Elective		1	
Complete 14 credit hours toward degree Earn minimum 2.00 term GPA				
Summer Semester Year 2: 0 hours				
Complete Anchor II & DISC 200 Complete Foreign Language Requirement (211 or higher) Complete RooWriter Assessment Complete at least 60 credit hours toward degree Maintain minimum 2.00 cumulative GPA				Students may use the summer to ensure completion of 30 hours per academic year or to lighten fall and spring course loads.
Fall Semester Year 3: 15 hours				
	COMP-SCI 394R Applied Probability		3	
	COMP-SCI 431 Introduction to Operating Systems		3	
	Focus A Arts & Humanities Click for options		3	
	**ANCHOR III Civic & Community Engagement Click for options		3	
	**DISC 300 Civic & Community Engagement		3	
Complete 15 credit hours toward degree Earn minimum 2.00 term GPA				
Spring Semester Year 3: 15 hours				
	COMP-SCI 404 Introduction to Algorithms & Complexity		3	³ Students may also take elective courses in E&C-ENGR or INFO-TECH in addition to COMP-SCI.
	COMP-SCI 371 Database Design, Implementation, & Validation OR COMP-SCI 470 Introduction to Database Management Systems		3	
	COMP-SCI 3XX/4XX Major Elective ³		3	
	Life Science Course (Chemistry or Biology)		3	
	General Elective		3	
Complete 15 credit hours toward degree Earn minimum 2.00 term GPA				
Summer Semester Year 3: 0 hours				
Complete Anchor III & DISC 300 Complete at least 90 credit hours towards degree Maintain minimum 2.00 cumulative GPA				Students may use the summer to ensure completion of 30 hours per academic year or to lighten fall and spring course loads.

Fall Semester Year 4: 15 hours				
	COMP-SCI 449 Foundations of Software Engineering		3	Apply for graduation & complete your Final Degree Audit for Major and Minor (if applicable). Take the ETS Proficiency Profile (EPP) exit exam.
	COMP-SCI 420 Introductory Networking & Applications OR COMP-SCI 421A Foundations of Data Networks		3	
	COMP-SCI 441 Programming Languages: Design & Implementation		3	
	COMP-SCI 3XX/4XX Major Elective		3	
	General Elective		3	
Complete 15 credit hours toward degree Earn minimum 2.00 term GPA				
Spring Semester Year 4: 15 hours				
	COMP-SCI 451R Software Engineering Capstone		3	Take Major Field (MF) exit exam. Complete the CSEE Exit Survey two-weeks prior to graduation.
	COMP-SCI 461 Introduction to Artificial Intelligence OR COMP-SCI 465R Introduction to Statistical learning		3	
	COMP-SCI 4XX Major Elective		3	
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	General Elective (only if needed to reach 120 hours)		3	
Earn minimum 2.00 term GPA				

Graduation Requirements Summary					
Total Hours	Total Hours at UMKC	Upper Lvl Hrs in Major at UMKC	Upper (300 / 400) Level Hours	Major GPA	UMKC GPA
120 minimum	30 minimum	12 minimum	36 minimum	2.00 minimum	2.00 minimum

Other Information

A minimum of 30 hours must be earned at the University of Missouri-Kansas City, regardless of the number and level of hours earned at another institution. Undergraduate degree-seeking students are required to earn credit in at least 36 hours of coursework numbered 300 and above at UMKC. In the case of transfer credit, the coursework must be numbered as junior-senior level work by the transferring institution. Community-college transfer coursework cannot count towards the 36-hour requirement.

Non-course Requirements

RooWriter Assessment _____
 Major Field Exam _____
 ETS Proficiency Profile _____

Policy

The University reserves the right to make changes in courses and course schedules. 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.

Advising Contact Information

School of Computing & Engineering
 534 R H Flarsheim Hall

5110 Rockhill Road
Kansas City MO 64110
816-235-2399
sce@umkc.edu
<http://sce.umkc.edu/>

Career Opportunities

UMKC Career Services – career.umkc.edu | 816-235-1636 | 2nd Floor, Atterbury Student Success Center

O*Net OnLine – OnetOnline.org Enter the Classification of Instructional Programs (CIP) number of your major to learn about related careers.

Major CIP: 110701