

College of Arts & Sciences

Bachelor of Science in Mathematics & Statistics

2019-2020 Major Map: First Time College Student

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: Students who do not place into MATH 120 Pre-Calculus or higher may have to complete preparatory math coursework, potentially adding hours to the total hours required for the degree.

First Math Course:		MATH 120 Pre-Calculus	Foreign Language Requirement:	No		General Elective Hours:	21	
Critical Course	Course Subject, Number, & Title and Academic Plan Benchmarks Bold = UMKC General Education Core requirement ** Co-Requisite Enrollment Required		quirement	Min. Recom. Grade Credit Hours		Notes		
Fall Sem	nester \	ear 1: 14 hours						
\Diamond	MATH 120 Pre-Calculus¹ (Focus B)			В	5	¹ Enrollment restricted. Must take		
	Focus C Human Values & Ethical Reasoning Click Recommend HISTORY 101, 102, or POL-SCI 2103		for options		3	ALEKS Math Placem show prerequisite rec	quirement has	
**Anchor I Reasoning & Values <u>Click for options</u> 3			been met prior to enrolling.					
	**DISC	100 Reasoning & Values (Speech & Writing)	Click for options		3	² HISTORY 101, 102, & POL-SCI 210 fulfill both the Focus Elective 8		
	Complete 14+ credit hours toward degree Earn minimum 2.00 term GPA					Missouri Constitution requirement.		
Spring S	Semest	er Year 1: 16-18 hours						
\Diamond	MATH 210 Calculus I (Focus Elective)			В	4	³ Bachelor of Science		
		or Science Elective Course ³ CS 240 Physics for Scientists & Engineers I re	ecommended)		3-5	hours of math and science coursework. Math BS students need to complete 15 additional hours of math or science beyond the major to		
	**Anch	or II Culture & Diversity Click for options			3			
	**DISC	200 Culture & Diversity (Speech & Writing)	Click for options		3			
	Genera	l Elective			3	reach the minimum 60 hours.		
	Complete 16+ credit hours toward degree Earn minimum 2.00 term GPA					Register for <u>UMKC F</u> career network.	landshake	
Summer	Seme	ster Year 1						
\Diamond	MATH 2	210 Calculus I (if not already completed)		В	4			
Complete Complete	MATH 21 at least 3	& DISC 100 0 Calculus I 0 total credit hours toward degree n 2.00 cumulative GPA						
Fall Sem	nester \	ear 2: 16-18 hours						
\Diamond		220 Calculus II		В	4			
	CAS Science & Math Requirement Click for options (Must take at least one science course with lab if not already completed)				3-5			

	MATH or Science Elective Course		3	Take the RooWriter Assessment	
	Focus A Arts & Humanities Click for options		3	after completing DISC 200. Must complete prior to enrolling in a	
	General Elective		3	Writing Intensive (WI) course.	
	e 16+ credit hours toward degree				
	Semester Year 2: 16 hours				
\bigcirc	MATH 250 Calculus III	В	4		
	MATH 301 On Solid Ground Sets & Proofs		3	_	
	CAS Social & Behavioral Sciences Requirement Click for options (Complete MO Constitution requirement if not met above)		3		
	CAS Arts & Humanities Requirement Click for options		3		
	General Elective		3		
	e 16 credit hours toward degree				
	er Semester Year 2				
Complete Anchor II & DISC 200 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.	
	emester Year 3: 15-16 hours			, opining control to	
	MATH 300 Linear Algebra		3		
	MATH 345: Ordinary Differential Equations OR STAT 436: Introduction to Mathematical Statistics I		3-4		
	**Anchor III Civic & Community Engagement Click for options		3		
	**DISC 300 Civic & Community Engagement (Speech & Writing) Click for options		3		
	MATH or Science Elective Course		3		
Complete 15+ credit hours toward degree Earn minimum 2.00 term GPA					
Spring	Semester Year 3: 15-17 hours				
	MATH 410 Modern Algebra ⁴ OR MATH or STAT 3XX/4XX Elective Click for options		3	⁴ The major requires Math 410 or	
	CAS Science & Math Requirement Click for options (Must take at least one science course with lab)		3-5	Math 420. A student may take both, but often one of these is	
	CAS Social & Behavioral Sciences Requirement Click for options		3	replaced by another Math/Stat 3XX/4XX Elective.	
	CAS Arts & Humanities Requirement Click for options		3		
	General Elective		3	Apply for graduation & complete your Final Degree Audit for Major	
	nplete 15+ credit hours toward degree n minimum 2.00 term GPA			and Minor (if applicable).	
Summ	er 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		
MATH 420 Linear Algebra II OR MATH or STAT 3XX/4XX Elective Click for options	3	
MATH 402 Advanced Analysis I	3	
MATH or Science Elective Course	3	Take the HElahten evit even evit
General Elective	3	Take the <u>HEIghten exit exam</u> exit exam.
General Elective	3	
Complete 15 credit hours toward degree Earn minimum 2.00 term GPA		
Spring Semester Year 4: 12 hours		
3XX/4XX Writing Intensive Course (MATH 464WI History of Mathematics Recommended)	3	
MATH or STAT 3XX/4XX Elective Click for options	3	
MATH or Science Elective Course	3	
General Elective (if required 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	
Missouri Higher Education Civics Achievement Examination	
RooWriter Assessment	
HEIghten exit exam	

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

College of Arts & Sciences Student Services 09 Scofield Hall (basement) http://cas.umkc.edu/advising/default.asp 816-235-1148

Career Opportunities

UMKC Career Services – <u>career.umkc.edu</u> | 816-235-1636 | 2nd Floor, Atterbury Student Success Center. O*Net OnLine – <u>OnetOnline.org</u> Learn about careers related to your major, income potential, and more.