

Four-Year Graduation Plan - Courses and 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. **All incoming freshmen must develop an academic plan (which maps out all courses needed to graduate within your intended major/degree). Your academic advisor is available to meet with you and create your specific plan.**

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. 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.

First Math	MATH 210, 120, or 125	Foreign Language Requirement	No	Free Elective Hours	15-18
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Critical Course or Benchmark	Course Subject, Number, and Title and Academic Plan Benchmarks Bold = UMKC General Education Core Requirement *Prerequisite May Be Required **Co-Requisite Enrollment Required	Min Recom Grade	Credit Hours (CH)	Notes
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Fall Semester Year 1: 13-17 hours

	**Anchor I: Reasoning and Values http://www.umkc.edu/core/courses/		3	The ALEKS Math Placement Exam is required prior to enrollment in MATH 120 (or Math 210, unless pre-requisite course has been taken with C- or higher). www.umkc.edu/mathplacement/ MATH 120 or MATH 210 fulfills the CAS Math Requirement. CHEM 211L fulfills the CAS Laboratory Experience Requirement.
	**DISC 100: Reasoning and Values (Speech and Writing)		3	
◆	Focus B: Scientific Reasoning and Quantitative Analysis CHEM 211: General Chem I AND CHEM 211L: General Chem I Lab		5	
◆	*MATH 210: Calculus I OR (CAS Science & Math Requirement) MATH 120: Precalculus OR MATH 125: Trig (if Math 110 has been completed for college credit already)	B	2-5	
◆	Complete 15 term hours toward degree (recommended), 12 minimum (required). Earn minimum 2.000 term GPA and minimum 2.00 cumulative UM GPA.			

Spring Semester Year 1: 15 hours

	**Anchor II: Culture and Diversity http://www.umkc.edu/core/courses/		3	
	**DISC 200: Culture and Diversity (Speech and Writing)		3	
◆	Focus Elective: PHYSICS 240: Physics for Scientists and Engineers I	B	5	
◆	*MATH 220: Calculus II or *MATH 210: Calculus I (CAS Science & Math Requirement)	C	4	
◆	Complete Anchor I and DISC 100. Complete 30 total hours minimum toward degree. Complete 15 term hours toward degree (recommended), 12 minimum (required). Earn minimum 2.000 term GPA and minimum 2.00 cumulative UM GPA.			

Summer Semester Year 1: 0 hours if all previous courses completed

	May use summer semester ensure completion of 30 hours per academic year or to lighten fall and spring course loads.			
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◆ Complete MATH 220: Calculus II.

Fall Semester Year 2: 14 hours

◆	CHEM 212R: General Chemistry II (CAS Science & Math Requirement)		4	Take the RooWriter Writing Assessment the semester immediately following DISC 200 and at least a semester before registering for a Writing Intensive course. https://net3.umkc.edu/intapps/RooWriter/logon.aspx
◆	CHEM 212LR: General Chemistry II Laboratory (CAS Science & Math Requirement)		1	
◆	PHYSICS 250: Physics for Scientists and Engineers II	B	5	
◆	MATH 250: Calculus III	B	4	
◆	Complete 14 term hours toward degree (recommended), 12 minimum (required). Earn minimum 2.000 term GPA and minimum 2.00 cumulative UM GPA.			

Spring Semester Year 2: 15 hours

◆	PHYSICS 350: Modern Physics		3	POL-SCI 210, HISTORY 101 or 102 fulfill Focus C: Human Actions, Values, and Ethics as well as the Missouri Constitution requirement.
◆	PHYSICS 385L: Advanced Lab (Elementary Circuits)		3	
	Focus C: Human Actions, Values, and Ethics (May choose Course to also fulfill MO Constitution Requirement)		3	
	CAS Arts & Humanities Requirement Click for options		3	
	Missouri Constitution course (if not fulfilled by above) OR other CAS Social & Behavioral Sciences Requirement Click for options		3	
◆	Complete Anchor II and DISC 200. Complete 60 total hours toward degree. Complete 15 term hours toward degree (recommended), 12 minimum (required). Earn minimum 2.000 term GPA and minimum 2.00 cumulative UM GPA.			

Summer Semester Year 2: 0 hours if all previous courses completed

	May use summer semester ensure completion of 30 hours per academic year or to lighten fall and spring course loads.		
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Fall Semester Year 3: 15 hours

	**Anchor III: Civic and Community Engagement http://www.umkc.edu/core/courses/		3
	**DISC 300: Civic and Community Engagement (Speech and Writing)		3
	PHYSICS 310: Mechanics I		3
	PHYSICS 330: Methods of Theoretical Physics I		3
	PHYSICS 395L: Advanced Lab (Computer Interfacing)		3
◆	Complete RooWriter Writing Assessment. Complete 15 term hours toward degree (recommended), 12 minimum (required). Earn minimum 2.000 term GPA and minimum 2.00 cumulative UM GPA.		

Spring Semester Year 3: 15 hours

	PHYSICS 311: Mechanics II		3
	PHYSICS 410: Thermal Physics		3

UMKC Major Map: Bachelor of Science in Physics

First-Time College Students

Catalog Year: 2016 - 2017

CAS Social & Behavioral Sciences Requirement Click for options	3
CAS Arts & Humanities Requirement Click for options	3
Focus A: Arts & Humanities Click for options	3

Complete 15 term hours toward degree (recommended), 12 minimum (required). Earn minimum 2.000 term GPA and minimum 2.00 cumulative UM GPA.

Summer Semester Year 3: 0 hours if all previous courses completed

Fall Semester Year 4: 15 hours

PHYSICS 460: Electricity and Magnetism I	3	Apply for graduation and complete Final Degree Audits for the following: UMKC General Education Core, CAS Degree Requirements, Major Requirements, and/or Minor Requirements.
PHYSICS 472: Intro to Quantum Mechanics	3	
PHYSICS 476LW: Advanced Lab (CAS Writing Intensive Requirement)	3	
Free Elective	3	
Free Elective	3	

Complete 15 term hours toward degree (recommended), 12 minimum (required). Earn minimum 2.000 term GPA and minimum 2.00 cumulative UM GPA. Take the ETS Proficiency Profile (EPP) exit exam.

Spring Semester Year 4: 12-15 hours

PHYSICS 420: Optics	3	In combination with required upper-level courses, take enough Free Elective hours at the 300/400-level to meet the minimum requirement of 36 upper-level credit hours.
PHYSICS 461: Electricity and Magnetism II	3	
Free Elective	3	
Free Elective	3	
<i>Free Elective (only take these credits if needed to reach 120 minimum hours)</i>	0-3	Take Major Field (MF) exam.

Complete 15 term hours toward degree (recommended), 12 minimum (required). Earn minimum 2.000 term GPA and minimum 2.00 cumulative UM GPA.

Graduation Requirements Summary

Total Degree Credit Hours	Upper Level (3xx/4xx) Hour Requirement	Minimum Hour / Residency Req.
120	36	30
Major GPA	UM GPA	Other GPA Requirements
2.0	2.0	Other

Policy

Non-course requirements **Met**
 RooWriter Writing Assessment
 ETS Proficiency Profile (EPP) exam
 Major Field (MF) exam

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 and teacher education timetables and 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.

Academic and Career Advising

College of Arts and Sciences Advising 09 Scofield Hall (Basement) 816.235.1148
<http://cas.umkc.edu/advising/default.asp>

UMKC Career Services Resources: <http://www.career.umkc.edu/> O*Net OnLine: <http://www.onetonline.org/>