

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.**

Admission to this program requires a separate application. Eligible students will have completed a minimum of 48 credit hours including Biology 202 Cell Biology and Chemistry 322R Organic Chemistry II and will have a minimum UM cumulative GPA of 3.25 by the end of their sophomore year. Applications are accepted each Spring.

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: Calculus I , MATH 216: Biomath I, or STAT 235: Statistics	Foreign Language Requirement	No	Free Elective Hours	Minimum of 15
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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: 15 hours

	**Anchor I: Reasoning and Values Click for options		3	BIOLOGY 102 is a non-majors biology course but may be recommended for students needing additional background in biology. Students should plan for summer enrollment to remain on track.
	**DISC 100: Reasoning and Values (Speech and Writing)		3	
◆	BIOLOGY 102: Biology And Living OR BIOLOGY 108: General Biology I OR BIOLOGY 109: General Biology II	B B B	3 3 3	A grade of B or higher in biology, chemistry, and math courses is a realistic benchmark for students to successfully complete a biology degree.
	BIOLOGY 108L: General Biology I Laboratory OR BIOLOGY 109L: General Biology II Laboratory	B B	1 1	
◆	MATH 110: College Algebra OR MATH 120: Precalculus OR MATH 210: Calculus I OR CHEM 211: General Chemistry I AND CHEM 211L: Experimental General Chemistry I	B B B B B	3 5 4 4 1	ALEKS Math Placement Exam or college credit with a grade of C- or higher in prerequisite required prior to enrollment in MATH 110 and MATH 120.
	BIOLOGY 115: First Year Seminar		1	
◆	Complete 12 term hours minimum toward degree Earn 2.250 minimum UM GPA Earn 2.250 minimum UM Biology GPA			Students must earn a grade of C- or higher for courses to satisfy majors requirements.

Spring Semester Year 1: 15-17 hours

	**Anchor II: Culture and Diversity Click for options		3	Register for UMKC Roo Career Network
	**DISC 200: Culture and Diversity (Speech and Writing)		3	
◆	BIOLOGY 108: General Biology I OR BIOLOGY 109: General Biology II	B B	3 3	Students who are planning to complete their degree in 4-years should aim to complete a minimum of 30 credit hours per
	BIOLOGY 108L: General Biology I Laboratory OR	B	1	

UMKC Major Map: Bachelor of Science in Biology (Biomedical Sciences)

First-Time College Students

Catalog Year: 2015 - 2016

	BIOLOGY 109L: General Biology II Laboratory	B	1	academic year (Fall, Spring, Summer).
◆	CHEM 211: General Chemistry I AND CHEM 211L: Experimental General Chemistry I OR CHEM 212R: General Chemistry II AND CHEM 212LR: Experimental General Chemistry II	B B B B	4 1 4 1	
◆	Complete Anchor I and DISC 100 Complete 12 term hours minimum toward degree Earn 2.250 minimum cumulative UM GPA Earn 2.250 minimum cumulative UM Biology GPA			

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

				May use summer semester to ensure completion of 30 hours per academic year or to lighten fall and spring course loads.
◆	Complete BIOLOGY 108: General Biology I Complete BIOLOGY 108L: General Biology I Laboratory Complete BIOLOGY 109: General Biology II Complete BIOLOGY 109L: General Biology II Laboratory Complete CHEM 211: General Chemistry I Complete CHEM 211L: Experimental General Chemistry I Earn 2.250 minimum cumulative UM GPA Earn 2.250 minimum cumulative UM Biology GPA Complete 30 total hours toward degree			

Fall Semester Year 2: 15 hours

◆	BIOLOGY 202: Cell Biology OR BIOLOGY 206 Genetics	B B	3 3	HISTORY 101, 102 or POL-SCI 210 recommended for Focus C and Constitution Requirement .
	CHEM 321: Organic Chemistry I AND CHEM 321L: Organic Chemistry Laboratory I	B B	3 1	
	MATH 210: Calculus I OR MATH 216: Calculus for Biological Sciences	B B	4 4	Students considering medicine as a career should plan to take coursework in statistics, psychology, and sociology to prepare them for the Medical College Admission Test (MCAT).
	Focus Elective (A or C) Click for options		3	
	Elective		3	
◆	Complete 12 term hours minimum toward degree Earn 2.250 minimum cumulative UM GPA Earn 2.250 minimum cumulative UM Biology GPA			

Spring Semester Year 2: 16-17 hours

	**Anchor III: Community & Civic Engagement Click for options		3	Students planning to continue their education in professional or graduate programs should meet with their adviser to discuss application timeline and requirements.
	**DISC 300: Community & Civic Engagement (Speech and Writing)		3	
◆	BIOLOGY 202: Cell Biology OR BIOLOGY 206 Genetics	B B	3 3	Students interested in health care should consider applying to the following: < BS Biology Biomedical Sciences Emphasis Program < Medical Scholars-UMKC School of Medicine
	CHEM 322R: Organic Chemistry II AND CHEM 322L: Organic Chemistry Laboratory II	B B	3 1	
	MATH 220: Calculus II OR MATH 226: Biomath II: Statistics and Modeling OR STAT 235: Elementary Statistics	B B B	4 4 3	
▲	Complete 12 term hours minimum toward degree			

UMKC Major Map: Bachelor of Science in Biology (Biomedical Sciences)

First-Time College Students

Catalog Year: 2015 - 2016



Earn 2.250 minimum cumulative UM GPA
Earn 2.250 minimum cumulative UM Biology GPA

◀ Reserved Admission-UMKC
School of Dentistry

Summer Semester Year 2: 0 hours if previous courses completed



Complete 60 total hours toward degree
Complete Anchor II and DISC 200
Complete CHEM 321: Organic Chemistry I
Complete CHEM 321L: Organic Chemistry Laboratory I

May use summer semester to ensure completion of 30 hours per academic year or to lighten fall and spring course loads.

Fall Semester Year 3: 13-14 hours

LS-ANATO 118: Introductory Anatomy	B	3	File an Application for Graduation.
LS-ANATO 118L: Introductory Anatomy Laboratory	B	2	
LIFE-SCI 310: Fundamentals of Medicine I	B	2	Students must complete RooWriter Writing Assessment prior to enrolling in a Writing Intensive Course.
LIFE-SCI 201: Healthcare Professions Seminar	CR	1	
PHYSICS 210: General Physics I OR PHYSICS 240: Physics For Scientists and Engineers I	B B	4 5	Students must complete two (2) biology lab courses (minimum of 5 hours), one of which must be Writing Intensive (WI).
Focus Elective (A or C) Click for options		3	
Complete RooWriter Assessment Earn 2.250 minimum cumulative UM GPA Earn 2.250 minimum cumulative UM Biology GPA			

Spring Semester Year 3: 14-15 hours

LS-BIOC 341: Basic Biochemistry	B	3
LIFE-SCI 320: Fundamentals of Medicine II	B	2
LIFE-SCI 202: Exploring Healthcare Professions	CR	1
MED 9115: Medical Terminology	B	1
PHYSICS 220: General Physics II OR PHYSICS 250: Physics For Scientists and Engineers II	B B	4 5
Elective		3
Earn 2.250 minimum cumulative UM GPA Earn 2.250 minimum cumulative UM Biology GPA		


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



Complete 90 total hours toward degree


Fall Semester Year 4: 14 hours

LS-MCRB 313: Microbiology	B	3
LS-MCRB 313WL: Laboratory In Microbiology	B	3
LS-PHYS 316: Principles of Physiology	B	3
LIFE-SCI 330: Fundamentals of Medicine III	B	2
Elective		3

	Complete Anchor III and DISC 300 Earn 2.250 minimum cumulative UM GPA Earn 2.250 minimum cumulative UM Biology GPA
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Spring Semester Year 4: 14 hours

BIOLOGY 498WI: Critical Analysis Of Biological Issues OR	B	3
LIFE-SCI 497: Special Topics OR	B	3
LIFE-SCI 499: Undergraduate Research	B	3
LIFE-SCI 340: Fundamentals of Medicine IV	B	2
BIOLOGY Elective-Upper Level	B	3
Elective		3
Elective		3

	Complete Major Field Exam for Biology Complete ETS Proficiency Profile Earn 2.250 minimum cumulative UM GPA Earn 2.250 minimum cumulative UM Biology GPA
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Graduation Requirements Summary

Total Hours (120 minimum)	Total Hours at UMKC (30 hours min)	Major GPA	UMKC GPA
120	30	2.00	2.00

Other Information

Non-course requirements **Met**
 RooWriter Assessment

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.

Advising Contact Information

School of Biological Sciences Academic Support
 816-235-2580
 SBS-undergrad@umkc.edu
http://sbs.umkc.edu/undergraduate_support.cfm

Career Opportunities

UMKC Career Services Resources: <http://www.career.umkc.edu/?q=node/87>
 O*Net OnLine: <http://www.onetonline.org/find/>