

## BACHELOR OF SCIENCE IN CHEMISTRY, 2023-24

For more information about policies and requirements, please see the UMKC 2023-24 Catalog.

### FIRST YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
CHEM 211 & 211L General Chemistry I	5	CHEM 212R & CHEM 212LR General Chemistry II	5
MATH 120 Precalculus	5	MATH 210 Calculus I	4
GEFSE 101 First Semester Experience	3	ENGLISH 225 Intermediate Academic Prose	3
ENGLISH 110 Introduction to Academic Prose	3	GECRT-SC Critical Thinking in Natural & Physical Sciences	3
		BIOLOGY 250 Careers in Biological & Chemical Sciences or LIFE-SCI 201 Careers in Health	1
<b>TOTAL</b>	<b>16</b>	<b>TOTAL</b>	<b>16</b>

### SECOND YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
CHEM 321 & 321L Organic Chemistry I	4	CHEM 322R & CHEM 322L Organic Chemistry II	4
PHYSICS 240 Physics for Scientists and Engineers I	5	PHYSICS 250 Physics for Scientists & Engineers II	5
MATH 220 Calculus II	4	MATH 250 Calculus III	4
Communication Requirement (COMM-ST 110, 140, 212 or 277)	3	GECRT-SS Critical Thinking in Social & Behavioral Sciences	3
<b>TOTAL</b>	<b>16</b>	<b>TOTAL</b>	<b>16</b>

### THIRD YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
CHEM 431 Physical Chemistry I	3	CHEM 432 Physical Chemistry II	3
CHEM 341WI Analytical Chemistry I: Quantitative Analysis	4	CHEM 437WI Experimental Physical Chemistry I	3
CHEM 410 Chemical Literature	1	GECRT-AH Critical Thinking in Arts & Humanities	3
BIOLOGY 251 (recommended elective; or LIFE-SCI 202 in Spring)	1	GECUE Civic & Urban Engagement	3
GECDV Culture & Diversity	3	General Elective	3
Constitution Requirement (HISTORY 101, 102, POL-SCI 210, CJC 364 or HON 230)	3		
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>15</b>

### FOURTH YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
CHEM 382 Inorganic And Organic Synthesis	2	CHEM 442R Analytical Chemistry II: Instrumental Analysis	3
CHEM 367 Bioorganic Chemistry or BIOLOGY 441 Biochemistry	3	CHEM 451R Inorganic Chemistry	3
BIOLOGY 397 Experience Based Education (or General Elective)	3	CHEM/BIOL/PHYSICS/MATH Major Elective 300/400 level	3
General Elective	3	General Elective	3
General Elective	3		
<b>TOTAL</b>	<b>14</b>	<b>TOTAL</b>	<b>12</b>

Additional Graduation Requirements: Civics Exam and HEIghten Exit Exam

**Total Credits to Graduate: 120**