

## BACHELOR OF SCIENCE IN COMPUTER SCIENCE, 2019-20

For more information about policies and requirements, please see the [UMKC 2019-20 Catalog](#).

### FIRST YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
Anchor I Reasoning & Values Recommend: ANCH 150 Computing, Engineering & Society	3	MATH 220 Calculus II	4
DISC 100 Discourse I	3	CS 191 Discrete Structures I	3
MATH 210 Calculus I (FOCUS B)	4	Anchor II Culture & Diversity	3
CS 101 Problem Solving & Programming I	3	DISC 200 Discourse II	3
CS 101L Problem Solving & Programming I Lab	1	FOCUS A Arts & Humanities	3
<b>TOTAL</b>	<b>14</b>	<b>TOTAL</b>	<b>16</b>

### SECOND YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
CS 201R Problem Solving & Programming II	3	CS 281R Computer Architecture & Organization	3
CS 201L Problem Solving & Programming II Lab	1	CS 303 Data Structures	3
CS 291 Discrete Structures II	3	STAT 235 Elementary Statistics (FOCUS Elective)	3
MATH 300 Linear Algebra	3	PHYS 250 Physics for Scientists & Engineers II	5
PHYS 240 Physics for Scientists & Engineers I	5		
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>14</b>

### THIRD YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
CS 394R Applied Probability	3	CS 404 Intro to Algorithms & Complexity	3
CS 431 Operating Systems	3	CS 371 OR 470 Database Design or Management	3
ANCH 308 (CS 304WI) Ethical Issues in Computing & Engineering	3	CS 3XX/4XX CS-ECE-IT Elective	3
DISC 300 Discourse III	3	Life Science Elective	3
FOCUS C Human Action, Values & Ethics Recommend: HIST 101, 102, or POLS-SCI 210 to fulfill the Constitution Requirement	3	General Elective	3
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>15</b>

### FOURTH YEAR

FALL SEMESTER	HOURS	SPRING SEMESTER	HOURS
CS 441 Programming Lang Design/Implementation	3	CS 451R Software Engineering	3
CS 420 OR 421A Networking & Applications or Data Networks	3	CS 461 or 465R Artificial Intelligence or Statistical Learning	3
CS 449 Fundamentals of Software Engineering	3	CS 3XX/4XX CS-ECE-IT Elective	3
CS 3XX/4XX CS-ECE-IT Elective	3	CS 4XX CS-ECE-IT Elective	3
General Elective	3	General Elective	4
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>16</b>

**Total Credits to Graduate: 120**