**UMKC** School of Science and Engineering

# Transfer Guide
## *Associate of Science*
## *BS-Computer Science*

JOHNSON COUNTY COMMUNITY COLLEGE

| JCCC—Fall Semester 1 | Hrs | | JCCC—Spring Semester 1 | Hrs | | JCCC—Summer Semester 1 | Hrs |
|---|---|---|---|---|---|---|---|
| CS 200 Concepts of Programming Algorithms C++ | 4 | | ENGL 122 Composition II | 3 | | | |
| ENGL 121 Composition I | 3 | | MATH 242 Calculus II | 5 | | | |
| MATH 241 Calculus I | 5 | | CS 235 Object Oriented Programming Using C++ | 4 | | | |
| Humanities Course | 3 | | Social Sciences & Economics Course | 3 | | | |

| JCCC—Fall Semester 2 | Hrs | | JCCC—Spring Semester 2 | Hrs | | UMKC—Summer Semester 2 | Hrs |
|---|---|---|---|---|---|---|---|
| COMS 120 or 121 | 3 | | CS 211 Discrete Structures II* | 3 | | | |
| PHYS 220 Engineering Physics I | 5 | | Life or Physical Science** | 3-5 | | | |
| CS 210 Discrete Structures I* | 3 | | Cultural Diversity Course | 3 | | | |
| Humanities Course | 3 | | Social Sciences & Economics Course | 3 | | | |
| | | | MATH 181 Statistics | 3 | | | |

| UMKC—Fall Semester 3 | Hrs | | UMKC—Spring Semester 3 | Hrs | | UMKC—Summer Semester 3 | Hrs |
|---|---|---|---|---|---|---|---|
| CS 281R Computer Architecture & Organization | 3 | | CS 394R Applied Probability | 3 | | | |
| CS 303 Data Structures | 3 | | CS 404 Intro to Algorithms & Complexity | 3 | | | |
| CS 304 Ethics & Professionalism | 3 | | CS 431 Operating Systems | 3 | | | |
| CS 320 Data Communications & Networking | 3 | | CS 470 Database Management | 3 | | | |
| MATH 300 Linear Algebra | 3 | | CS 361 Intro to Cybersecurity | 3 | | | |

| UMKC—Fall Semester 4 | Hrs | | UMKC—Spring Semester 4 | Hrs | | UMKC—Summer Semester 4 | Hrs |
|---|---|---|---|---|---|---|---|
| CS 441 Programming Language Design | 3 | | CS 451R Software Engineering Capstone | 3 | | | |
| CS 449 Foundations of Software Development | 3 | | CS 461 Intro to Artificial Intelligence | 3 | | | |
| CS Elective (300/400 level) | 3 | | CS Elective (400 level) | 3 | | | |
| CS Elective (300/400 level) | 3 | | CS/E&C ENGR/INFO-TEC Elective | 3 | | | |
| General Elective (as needed) | 3 | | CS 456 Human Computer Interface | 3 | | | |

**To be exempt from the UMKC Essentials or Missouri Core 42 general education requirements, JCCC students are encouraged to complete the Associate of Science degree at JCCC.**

*Students must complete both Discrete Structures courses at JCCC in order to receive credit at UMKC.
**Acceptable courses include BIOL 135, CHEM 124, GEOS 130, GEOS 140, PHYS 221.