## Johnson County Community College — Missouri S&T

Applied Mathematics BS Transfer Guide  
Effective as of Fall 2017

**Partner School**

| ENGL 121 | Composition I | 3 |
| ENGL 122 | Composition II | 3 |
| SPD 121 | Public Speaking  
(Required for AA degree) | 3 |
| Total Hours | 9 |

| ENGLISH 1120 | Exposition and Argumentation | 3 |
| ENGLISH 1160 | Writing and Research | 3 |
| SPMS 1185 | Principles of Speech  
(Will apply to B.S. degree as free elective) | 3 |
| Total Hours | 9 |

### Mathematics and Science (Take all courses)

| MATH 241 | Calculus I and  
Calculus II | 10 |
| MATH 242 | Calculus II | 5 |
| MATH 243 | Calculus III | 5 |
| PHYS 220 | Engineering Physics I | 5 |
| PHYS 221 | Engineering Physics II | 5 |
| Total Hours | 25 |

| MATH 1214 | Calculus for Engineers I  
Calculus II for Engineers | 8 |
| MATH 1215 | Calculus II for Engineers | 4 |
| MATH 2222 | Calculus with Analytic Geometry III | 4 |
| PHYSICS 1135 | Engineering Physics I | 4 |
| PHYSICS 2135 | Engineering Physics II | 4 |
| Total Hours | 20 |

### Social Sciences (Take all courses)

| HIST 126 | Modern Western Civilization or  
U.S. History since 1877 or  
American History to 1877 or  
American History since 1877 or  
Political Science or  
American National Government  
(At least one of these courses is required to satisfy state requirement) | 3 |
| HIST 140 | Modern Western Civilization or  
U.S. History since 1877 or  
American History to 1877 or  
American History since 1877 or  
Political Science or  
American National Government  
(At least one of these courses is required to satisfy state requirement) | 3 |
| POLS 122 | Economics II or  
Economics I | 3 |
| ECON 231 | Economics I | 3 |
| ECON 230 | Economics II | 3 |
| Total Hours | 6 |

| HISTORY 1200 | Modern Western Civilization or  
American History to 1877 or  
American History since 1877 or  
American Government  
(At least one of these courses is required to satisfy state requirement) | 3 |
| HISTORY 1300 | Modern Western Civilization or  
American History to 1877 or  
American History since 1877 or  
American Government  
(At least one of these courses is required to satisfy state requirement) | 3 |
| HISTORY 1310 | Modern Western Civilization or  
American History to 1877 or  
American History since 1877 or  
American Government  
(At least one of these courses is required to satisfy state requirement) | 3 |
| POL SCI 1200 | Modern Western Civilization or  
American History to 1877 or  
American History since 1877 or  
American Government  
(At least one of these courses is required to satisfy state requirement) | 3 |
| ECON 1100 | Principles of Microeconomics or  
Principles of Macroeconomics | 3 |
| ECON 1200 | Principles of Microeconomics or  
Principles of Macroeconomics | 3 |
| Total Hours | 6 |

### Humanities (Take all courses)

| Foreign Language | Elementary I and Elementary II in a single foreign language  
(Must take two courses in: German, Spanish, French, Russian, Arabic, Chinese or Japanese) | 6 |
| Total Hours | 6 |

| Literature Elective | 3 |
| Foreign Language  
(2 semesters of same language) | 3 |
| Total Hours | 9 |

### Additional Degree Requirements (Select up to 17 hours)

| MATH 254 | Differential Equations | 4 |
| MATH 246 | Elementary Linear Algebra | 3 |
| CHEM 122 | General Chemistry I Lecture and Lab or  
Principles of Chemistry or  
Introductory Biology for Non-Majors | 5 |
| CHEM 124 | Concepts of Programming Algorithms/C++ or  
Object Oriented Programming/C++ | 4 |
| CHEM 125 | General Chemistry I Lecture and Lab or  
Principles of Chemistry or  
Introductory Biology for Non-Majors | 4 |
| BIOL 121 | Concepts of Programming Algorithms/C++ or  
Object Oriented Programming/C++ | 4 |
| CS 1971 | Intro to Programming Method and Lab (C++) | 3 |
| CS 1981 | Intro to Programming and Lab (C++) | 3 |
| CS 1570 | Intro to Programming Method and Lab (C++) | 4 |
| CS 1580 | Intro to Programming and Lab (C++) | 4 |
| Total Hours | 17 |

**Maximum credit hours to be transferred to Missouri S&T degree requirements.**  
72

Missouri S&T residency requirements: The last 60 hours of any Missouri S&T degree must be completed at Missouri S&T.  
Students must receive special permission from Missouri S&T to apply more than the maximum credit hours listed above toward the Missouri S&T degree.  
Students are not required to complete all courses on this guide before transferring to Missouri S&T.

This transfer guide is published by Missouri University of Science and Technology and is in effect as of the 2017/2018 academic year. Further information or updates are available from Missouri S&T Transfer Admissions at transfer.mst.edu, transfer@mst.edu, or 800-522-0938.