

St. Charles Community College — Missouri S&T

Applied Mathematics BS Transfer Guide

Effective as of Fall 2020

St. Charles Community College

Missouri S&T

English and Communication Skills (Take all courses)

ENG 101	English Composition I	3
ENG 102 or ENG 115	English Composition II or Technical Writing	3
LIT 250 or LIT 210 or LIT 272 or LIT 223	English Literature Before 1800 or American Literature From 1620-1865 or World Lit-Ancient World thru Renaissance or African American Literature (or other literature elective)	3

ENGLISH 1120	Exposition and Argumentation	3
ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2245 or	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or African American Literature (or other literature elective)	3

Language and Communication Requirement Option 1 or Option 2 <small>The requirement will be satisfied by either 6 credits of Speech and Media Studies or 2 semesters of the same foreign language.</small>	Option 1: Foreign Language (2 semesters of same language satisfies the Language and Communication Requirement.)	6
	Option 2: Speech and Media Studies COM 106 Public Speaking and one additional course (6 credit hours of Speech and Media Studies satisfies the Language and Communication Requirement)	

Language and Communication Requirement Option 1 or Option 2 <small>The requirement will be satisfied by either 6 credits of Speech and Media Studies or 2 semesters of the same foreign language.</small>	Option 1: Foreign Language (2 semesters of same language satisfies the Language and Communication Requirement.)	6
	Option 2: Speech and Media Studies SPMS 1185 Principles of Speech and one additional course (6 credit hours of Speech and Media Studies satisfies the Language and Communication Requirement)	

Total Hours 15

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Social Sciences (Take all courses)

HIS 146 or HIS 101 or HIS 102 or POL 101	Western Civ: Modern European Heritage or US History to 1877 or US History Since 1877 or American Government <small>(At least one of these courses is required to satisfy state requirement)</small>	3
ECO 120* or ECO 110*	Principles of Microeconomics* or Principles of Macroeconomics* <small>*Students pursuing the Actuarial Science emphasis take BOTH ECO110 and 120 (6 hours econ for a total of 9 hours social sciences).</small>	3

HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History Since 1877 or American Government <small>(At least one of these courses is required to satisfy state requirement)</small>	3
ECON 1100* or ECON 1200*	Principles of Microeconomics* or Principles of Macroeconomics* <small>*Students pursuing the Actuarial Science emphasis take BOTH ECON 1100 and 1200 (6 hours econ for a total of 9 hours social sciences).</small>	3

Total Hours 6

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Mathematics and Science (Take all courses)

MAT 180	Calculus and Analytic Geometry I	5
MAT 230	Calculus and Analytic Geometry II	5
MAT 240	Calculus and Analytical Geometry III	5
MAT 250* or MAT 242* or MAT 215*	Differential Equations* (3) or Introductory Linear Algebra* (3) or Probability Theory* (4) <small>*Select 1 or 2 of these courses</small>	3-4
PHY 250	Engineering Physics I	5
PHY 251	Engineering Physics II	5
CHM 115 or BIO 150 or BIO 105,106	General Chemistry I (5) or General Biology I (5) or Essentials of Biology (3) and Lab (1)	3-5

MATH 1214	Calculus for Engineers I	4
MATH 1215	Calculus for Engineers II	4
MATH 2222	Calculus with Analytic Geometry III	4
MATH 3304* or MATH 3108* or STAT 3115*	Elementary Differential Equations* or Linear Algebra* or Engineering Statistics* <small>*Select 1 or 2 of these courses</small>	3-6
PHYSICS 1135	Engineering Physics I	4
PHYSICS 2135	Engineering Physics II	4
CHEM 1310, 1319 or BIO SCI 1113, 1219	General Chemistry I and Lab or General Biology and Lab	5

See your advisor for course options	3
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Technical electives in biology, chemistry, computer science, economics, engineering, geology, mechanics, or physics approved by advisor.	3
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Total Hours 34

Total Hours 31

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

68

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.