

East Central College — Missouri S&T

Applied Mathematics BS Transfer Guide

Effective as of Fall 2020

East Central College

Missouri S&T

English and Communication Skills (Take all courses)

ENG 101	English Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 102 or ENG 104	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
ENG 210 or ENG 221 or ENG 124 or ENG 214 or ENG 215	Survey British Lit: Beginnings to 1784 or Survey American Lit: Colonial to 1865 or World Literature I or Women's Literature or African-American Literature (or other literature elective)	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2242 or ENGLISH 2245 or	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or Literature by Women or African American Literature (or other literature elective)	3

Language and Communication Requirement	Option 1: Foreign Language (2 semesters of same language satisfies the Language and Communication Requirement.)	6
Option 1 or Option 2 The requirement will be satisfied by either 6 credits of Speech and Media Studies or 2 semesters of the same foreign language.	Option 2: Speech and Media Studies COM 110 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: Foreign Language (2 semesters of same language satisfies the Language and Communication Requirement.)	6
Option 1 or Option 2 The requirement will be satisfied by either 6 credits of Speech and Media Studies or 2 semesters of the same foreign language.	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)

CIV 202 or HST 101 or HST 102 or PSC 102	European Civilization II or US History to 1865 or US History 1865-1945 or US Government National and State (At least one of these courses is required to satisfy state requirement)	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 (At least one of these courses is required to satisfy state requirement)	3
ECO 102 or ECO 101	Principles of Microeconomics* or Principles of Macroeconomics* *Students pursuing the Actuarial Science emphasis take BOTH ECON 1100 and 1200 (6 hours econ for a total of 9 hours social sciences).	3	ECON 1100* or ECON 1200*	Principles of Microeconomics* or Principles of Macroeconomics* *Students pursuing the Actuarial Science emphasis take BOTH ECON 1100 and 1200 (6 hours econ for a total of 9 hours social sciences).	3

Total Hours 6

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Mathematics and Science (Take all courses)

MTH 190	Analytic Geometry & Calculus I	5	MATH 1214	Calculus for Engineers I	4
MTH 210	Analytic Geometry & Calculus II	5	MATH 1215	Calculus for Engineers II	4
MTH 220	Analytical Geometry & Calculus III	5	MATH 2222	Calculus with Analytic Geometry III	4
MTH 245* or MTH 241* or MTH 242*	Differential Equations* or Linear Algebra* or Engineering Statistics* *Select 1 or 2 of these courses	3-6	MATH 3304* or MATH 3108* or STAT 3115*	Elementary Differential Equations* or Linear Algebra* or Engineering Statistics* *Select 1 or 2 of these courses	3-6
PHY 211, 212	General Physics I and Lab	5	PHYSICS 1135	Engineering Physics I	4
PHY 221, 222	General Physics II and Lab	5	PHYSICS 2135	Engineering Physics II	4
EGR 251 or EGR 221,222	Data Structures or C++ Program Engineers and Lab	3-4	CS 1500 or CS 1971,1981	Computational Problem Solving or Intro to Programming Methodology and Lab (C++)	3
CHM 111 or BIO 111	General Chemistry I and Lab or General Biology I and Lab	5	CHEM 1310, 1319 or BIO SCI 1113, 1219	General Chemistry I and Lab or General Biology and Lab	5
	<i>See your advisor for course options</i>	3-6		Technical electives in biology, chemistry, computer science, economics, engineering, geology, mechanics, or physics approved by advisor.	3-6

Total Hours 38-41

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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.