

# Metropolitan Community College — Missouri S&T

## Applied Math BS with Secondary Education Teacher Certification Transfer Guide

Effective as of Fall 2023

### Metropolitan Community College

### Missouri S&T

#### Communication Skills (Take all courses)

ENGL 101	Composition and Reading I	3	ENGLISH 1120	Exposition and Argumentation	3
ENGL 102	Composition and Reading II	3	ENGLISH 1160	Writing and Research	3
COMM 100	Fundamentals of Speech	3	SPMS 1185	Principles of Speech	3
Total Hours			Total Hours		
9			9		

#### Mathematics and Science (Take all courses)

MATH 120*	College Algebra* *Required for teacher certification; not a Mathematics BS requirement.	3	MATH 1140*	College Algebra* *Required for teacher certification; not a Mathematics BS requirement.	3
MATH 130*	Trigonometry* *Required for teacher certification; not a Mathematics BS requirement.	3	MATH 1160*	Trigonometry* *Required for teacher certification; not a Mathematics BS requirement.	2
MATH 180	Analytic Geometry & Calculus I	5	MATH 1214	Calculus I	4
MATH 190	Analytic Geometry & Calculus II	5	MATH 1215	Calculus II	4
MATH 210	Analytic Geometry & Calculus III	4	MATH 2222	Calculus III	4
PHYS 220	Engineering Physics I	5	PHYSICS 1135	Engineering Physics I	4
PHYS 221	Engineering Physics II	5	PHYSICS 2135	Engineering Physics II	4
Total Hours			Total Hours		
30			25		

#### Social Sciences (Take all courses)

HIST 134 or HIST 120 or HIST 121	Western Civilization II or United States History to 1865 or United States History since 1865	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Modern Western Civilization or American History to 1877 or American History Since 1877	3
POLS 136	Introduction to American Government	3	POL SCI 1200	American Government	3
PSYC 140	General Psychology	3	PSYCH 1101	General Psychology	3
ECON 211 or ECON 210	Microeconomics or Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
Total Hours			Total Hours		
12			12		

#### Humanities (Take all courses)

ART 108 or MUSI 108 or SPDR 106 or PHIL 100	Survey of Art or Music Appreciation or Theater Appreciation or Introduction to Philosophy	3	ART 1180 or MUSIC 1150 or THEATRE 1190 or PHILOS 1105	Art Appreciation or Music Appreciation or Theatre via Video or Intro to Philosophy	3
ENGL 220 or ENGL 222 or ENGL 254 or ENGL 268 or ENGL 260	British Literature to 1750 or American Literature I 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
Total Hours			Total Hours		
6			6		

#### Additional Degree Requirements

**Select additional courses to total up to the maximum transfer credit hours shown below.**

MATH 230	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
CHEM 111 or BIOL 101	General College Chemistry I or General Biology	5	CHEM 1310, 1319 or BIO SCI 1113, 1219	General Chemistry I and Lab or General Biology and Lab	5
CSIS 271 or CSIS 123 or CSIS 223	Data Structures and Algorithm Analysis or Programming Fundamentals or Object-Oriented Programming with C++ or	3	CS 1500 or CS 1971,1981	Computational Problem Solving or Intro to Programming Methodology and Lab	3
ENGR 215	Engineering Statistics and Computation	3	STAT 3115	Engineering Statistics	3

#### Additional Courses for Teacher Certification Option (Take all courses)

EDUC 100	Introduction to Education	2	EDUC 1040	Perspectives in Education	2
EDUC 270	Educational Psychology	3	PSYCH 2300 (EDUC 2102)	Educational Psychology	3
PSYC 241	Human Development	4	PSYCH 3310	Developmental Psychology	3
EDUC 285	Education of Exceptional Learners	3	PSYCH 4310	Psychology of the Exceptional Child	3
Total Hours			Total Hours		
12			11		

**Professional Requirements for Teacher Education Program: Please view all program requirements at <https://teachereducation.mst.edu/secondaryeducation/>.**

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

**60**

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.