

Metropolitan Community Colleges — Missouri S&T

Applied Math BS with Secondary Education Teacher Certification Transfer Guide

Effective as of Fall 2020

Metropolitan Community Colleges

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		9	Total Hours		9

Mathematics and Science (Take all courses)

MATH 120	College Algebra	3	MATH 1140*	College Algebra*	3
			*Required for teacher certification; not a Mathematics BS requirement.		
MATH 130	Trigonometry	3	MATH 1160*	Trigonometry*	2
			*Required for teacher certification; not a Mathematics BS requirement.		
MATH 180	Analytic Geometry & Calculus I	5	MATH 1214	Calculus for Engineers I	4
MATH 190	Analytic Geometry & Calculus II	5	MATH 1215	Calculus for Engineers II	4
MATH 210	Analytic Geometry & Calculus III	4	MATH 2222	Calculus with Analytic Geometry 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		30	Total Hours		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 Politics		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		9	Total Hours		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 Appreciation or Introduction to Philosophy	3
ENGL 220 or ENGL 222 or ENGL 254 or ENGL 260 or ENGL 262/268	British Literature to 1750 or American Literature I or World Literature I or African-American Literature or Women's Lives and Autobiography/Women's Literature (or other literature elective)	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2245 or ENGLISH 2242 or	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or African American Literature or Literature by Women (or other literature elective)	3
Total Hours		6	Total Hours		6

Additional Degree Requirements (Select up to 10 hours)

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 Object-Oriented Programming with C++	3
			STAT 3115	Engineering Statistics	3
Total Hours		10	Total Hours		10

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		12	Total Hours		11

***Teacher certification notes:** An ACT of 22 or a 220 on the MoGEA is required for professional standing in the department. Students must pass the MoCA, maintain a 2.75 cumulative GPA, and a 3.0 content GPA to qualify for student teaching. Students completing this program will earn a BS in Applied Mathematics.

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

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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.