

St. Louis Community Colleges — Missouri S&T

Applied Math BS with Secondary Education Teacher Certification Transfer Guide

Effective as of Fall 2020

St. Louis Community Colleges

Missouri S&T

Communication Skills (Take all courses)

ENG 101	College Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 102	College Composition II	3	ENGLISH 1160	Writing and Research	3
COM 107	Public Speaking	3	SPMS 1185	Principles of Speech	3
Total Hours			Total Hours		
9			9		

Mathematics and Science (Take all courses)

MTH 160	Precalculus Algebra (or higher level math)	(3)	MATH 1140*	College Algebra*	(3)
			*Required for teacher certification; not a Mathematics BS requirement.		
MTH 170	Precalculus Trigonometry	(3)	MATH 1160*	Trigonometry*	(2)
			*Required for teacher certification; not a Mathematics BS requirement.		
MTH 210	Analytical Geometry and Calculus I	5	MATH 1214	Calculus for Engineers I	4
MTH 220	Analytical Geometry and Calculus II	5	MATH 1215	Calculus for Engineers II	4
MTH 230	Analytical Geometry and Calculus III	5	MATH 2222	Calculus with Analytic Geometry III	4
PHY 122	Engineering Physics I	5	PHYSICS 1135	Engineering Physics I	4
PHY 223	Engineering Physics II	5	PHYSICS 2135	Engineering Physics II	4
Total Hours			Total Hours		
25			20		

Social Sciences (Take all courses)

HST 128 or HST 101 or HST 102	Western Civilization 1500 to Present or US History to 1865 or US History 1865 to Present	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Modern Western Civilization or American History to 1877 or American History Since 1877	3
PSC 101	Intro to American Politics	3	POL SCI 1200	American Government	3
PSY 200	General Psychology	3	PSYCH 1101	General Psychology	3
ECO 152 or ECO 151	Principles of Microeconomics or Principles of 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 100 or MUS 114 or THT 101 or PHL 101	Art Appreciation or Music Appreciation or Intro to Theatre or Intro 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
ENG 210 or ENG 204 or ENG 205 or ENG 231 or ENG 216 or ENG 217	British Literature I or American Literature I or American Literature II or World Literature or Women in Literature or Major Black Writers (or other literature elective)	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2242 or ENGLISH 2245	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 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 up to 10 hours)

MTH 240	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
MTH 215	Linear Algebra	3	MATH 3108	Linear Algebra	3
CHM 105 or BIO 111	General Chemistry I or Intro to Biology I	5	CHEM 1310, 1319 or BIO SCI 1113, 1219	General Chemistry I and Lab or General Biology and Lab	5
IS 167 or IS 256 or ESC 101 or IS 275	C++ Programming I or C++ Programming or Scientific Computer Programming or Advanced C++ Programming	3	CS 1500 or CS 1971,1981	Computational Problem Solving or Intro to Programming Methodology and Lab	3
Total Hours			Total Hours		
10			10		

Additional Courses for Teacher Certification Option (Take all courses)

EDU 211 or EDU 220	Foundations of Education or Teaching Profession with Field Exp	3	EDUC 1040	Perspectives in Education	2
EDU 227	Educational Psychology	3	PSYCH 2300 (EDUC 2102)	Educational Psychology	3
PSY 205	Human Growth and Development	3	PSYCH 3310	Developmental Psychology	3
EDU 219	Education of Exceptional Learners	3	PSYCH 4310	Psychology of the Exceptional Child	3
Total Hours			Total Hours		
12			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.

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.