

Metropolitan Community Colleges — Missouri S&T

Physics 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 or ENGL 215	Composition and Reading II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	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 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
CHEM 111	General College Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 112	General College Chemistry II	5	CHEM 1320	General Chemistry II	3
Total Hours			Total Hours		
34			28		

Social Sciences (Take all courses)

HIST 120 or HIST 121 or HIST 134	United States History to 1865 or United States History since 1865 or Western Civilization II	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200	American History to 1877 or American History Since 1877 or Modern Western Civilization	3
POLS 136	Intro to American Politics	3	POL SCI 1200	American Government	3
PSYC 140	General Psychology	3	PSYCH 1101	General Psychology	3
Total Hours			Total Hours		
9			9		

Humanities (Take all courses)

ART 108 or MUSI 108 or SPDR 106	Survey of Art or Music Appreciation or Theater Appreciation	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre Appreciation	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			Total Hours		
6			6		

Additional Degree Requirements (Select up to 10 credit hours)

MATH 230	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
BIOL 101	General Biology	5	BIO SCI 1113	General Biology	3
PHYS 106	General Astronomy	4	PHYSICS 1505	Introductory Astronomy	3
Total Hours			Total Hours		
12			9		

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		

***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 Physics.

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.