

St. Charles Community College — Missouri S&T

Physics BS with Secondary Education Teacher Certification Transfer Guide

Effective as of Fall 2020

St. Charles Community College

Missouri S&T

Communication Skills (Take all courses)

ENG 101	English Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 102 or ENG 115	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
COM 106	Public Speaking	3	SPMS 1185	Principles of Speech	3
Total Hours			9		

Mathematics and Science (Take all courses)

MAT 180	Calculus and Analytic Geometry I	5	MATH 1214	Calculus for Engineers I	4
MAT 230	Calculus and Analytic Geometry II	5	MATH 1215	Calculus for Engineers II	4
MAT 240	Calculus and Analytical Geometry III	5	MATH 2222	Calculus with Analytic Geometry III	4
PHY 250	Engineering Physics I	4	PHYSICS 1135	Engineering Physics I	4
PHY 251	Engineering Physics II	4	PHYSICS 2135	Engineering Physics II	4
CHM 115	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 116	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis* (2) <small>*Note: CHEM 1510 is not an S&T degree requirement; course will transfer as elective credit.</small>	3
Total Hours			33		
Total Hours			28		

Social Sciences (Take all courses)

HIS 146 or HIS 101 or HIS 102	Western Civ: Modern European Heritage or US History to 1877 or US History Since 1877	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Modern Western Civilization or American History to 1877 or American History Since 1877	3
POL 101	American Government	3	POL SCI 1200	American Government	3
PSY 101	Intro to Psychology	3	PSYCH 1101	General Psychology	3
Total Hours			9		
Total Hours			9		

Humanities (Take all courses)

ART 1001 or MUS 111 or THE 122	Art Appreciation or Music Appreciation or Intro of Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video	3
LIT 250 or LIT 210 or LIT 272 or LIT 223	English Literature Before 1800 or American Literature From 1620-1865 or World Lit-Ancient World thru Renaissance or African American Literature (or other literature elective)	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2245 or	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or African American Literature (or other literature elective)	3
Total Hours			6		
Total Hours			6		

Additional Degree Requirements (Select up to 10 credit hours)

MAT 250	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
BIO 105 or BIO 150	Essentials of Biology (3) or General Biology I (5)	3-5	BIO SCI 1113	General Biology	3
PHY 130 or PHY 125	Astronomy or Intro to Physical Geology	3	PHYSICS 1505 or GEOLOGY 1110	Introductory Astronomy or Physical and Environmental Geology	3
Total Hours			10		
Total Hours			9		

Additional Courses for Teacher Certification Option (Take all courses)

EDU 212	Foundations of Education in a Diverse Society	3	EDUC 1040	Perspectives in Education	2
EDU 240	Educational Psychology	3	PSYCH 2300 (EDUC 2102)	Educational Psychology	3
PSY 110	Human Growth and Development	3	PSYCH 3310	Developmental Psychology	3
EDU 250	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 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.