

St. Charles Community College — Missouri S&T

Physics BS with Secondary Education Teacher Certification

Transfer Guide Effective as of Fall 2025

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	Total Hours		9

Mathematics and Science

Take all courses.

MAT 180	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I	4
MAT 230	Calculus and Analytic Geometry II	5	MATH 1215	Calculus II	4
MAT 240	Calculus and Analytical Geometry III	5	MATH 2222	Calculus 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) *CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.	3
		Total Hours	33		
				Total Hours	28

*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.

Social Sciences

Take all courses.

HIS 146 or	Western Civ: Modern European Heritage or		HISTORY 1300 or	American History to 1877 or	
HIS 101 or	US History to 1877 or	3	HISTORY 1310 or	American History Since 1877 or	3
HIS 102	US History Since 1877		HISTORY 1200	Modern Western Civilization	
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	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2245	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or African American Literature or other literature	3
		Total Hours 6			Total Hours 6

Additional Degree Requirements

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

MAT 250	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
MAT 242	Introductory Linear Algebra	3	MATH 3108	Linear Algebra	3
					Applies to degree as math/stat elective.
BIO 105 or BIO 150	Essentials of Biology (3) or General Biology: Cells to Organisms (5)	3-5	BIO 1113 or BIO SCI 1213, 1219*	General Biology (3) or General Biology (3) and Lab* (1)	3
					*The lab is not a degree requirement. Will transfer as general elective credit.
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
					Will be substituted for PHYSICS 1605.

Teacher Certification Requirements

Take all courses.

EDU 212	Foundations of Education in a Diverse Society	3	EDUC 1074	Education in a Diverse Society	3		
EDU 285	Teaching Profession with Field Experience	3	EDUC 1104	Teacher Field Experience I	1		
EDU 240	Educational Psychology	3	EDUC 2102 or PSYCH 2300	Educational Psychology	3		
PSY 110	Human Growth and Development	3	PSYCH 3310	Developmental Psychology	3		
EDU 250	Education of Exceptional Learners	3	EDUC 2310 or PSYCH 4310	Education of the Exceptional Child or Psychology of the Exceptional Child	3		
		Total Hours	15			Total Hours	13

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.

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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.