

**St. Charles Community College — Missouri S&T**  
**Physics BS with Secondary Education Teacher Certification Transfer Guide**  
 Effective as of Fall 2023

**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	General Chemistry II	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 additional courses to total up to the maximum transfer credit hours shown below.**

MAT 250	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
BIO 105 or BIO 150	Essentials of Biology (3) or General Biology: Cells to Organisms (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

**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

**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.**

**61**

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.