

# St. Charles Community College — Missouri S&T

## Physics BS 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	English Composition II	3	ENGLISH 1160	Writing and Research	3
COM 106	Public Speaking (if required for AA degree)	3	SPMS 1185	Principles of Speech (Not required for S&T degree. Transfers as free elective)	3
Total Hours			Total Hours		
9			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
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&amp;T degree requirement; course will transfer as elective credit.</small>	3
PHY 250	Engineering Physics I	5	PHYSICS 1135	Engineering Physics I	4
PHY 251	Engineering Physics II	5	PHYSICS 2135	Engineering Physics II	4
Total Hours			Total Hours		
35			28		

#### Social Sciences (Select 9 hours)

HIS 146 or HIS 101 or HIS 102 or POL 101	Western Civ: Modern European Heritage or US History to 1877 or US History Since 1877 or American Government <small>(At least one of these courses is required to satisfy state requirement)</small>	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History Since 1877 or American Government <small>(At least one of these courses is required to satisfy state requirement)</small>	3
<i>See your advisor for course options</i>		6	Social Sciences	Social Sciences Elective: Any economics, history, political science, sociology, psychology elective	6
Total Hours			Total Hours		
9			9		

#### Humanities (Select 6 credit hours to include one literature and one additional humanities)

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 <small>(or other literature elective)</small>	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 <small>(or other literature elective)</small>	3
PHIL 102	Intro to Logic	3	PHILOS 1115	Intro to Logic	3
PHL 101	Intro to Philosophy	3	PHILOS 1105	Intro to Philosophy	3
<i>See your advisor for course options</i>			Other fine art, literature, or philosophy elective		
Total Hours			Total Hours		
6			6		

#### Additional Degree Requirements (Select up to 12 hours)

MAT 250	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
MAT 242	Introductory Linear Algebra	3	MATH 3108	Linear Algebra	3
CPT 182	Beginning Programming in C++	3	CS 1971, 1981	Intro to Programming Methodology and Lab	3
BIO 105 or BIO 150	Essentials of Biology (3) or General Biology I (5) <small>(if required for AA degree)</small>	3-5	BIO SCI 1113	General Biology <small>(Transfers as free elective)</small>	3
Total Hours			Total Hours		
12			12		

#### 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.