

# St. Charles Community College — Missouri S&T

## Physics BS 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	English Composition II	3	ENGLISH 1160	Writing and Research	3
		Total Hours	6		
				Total Hours	6

#### 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
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
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	35		
				Total Hours	28

#### Social Sciences

Select 9 hours to include at least one course to satisfy the state requirement.

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 (At least one of these courses is required to satisfy state requirement)	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 (At least one of these courses is required to satisfy state requirement)	3
ECO 120 or ECO 110	Principles of Microeconomics or Principles of Macroeconomics (or other economics elective)	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics (or other economics)	3
PSY 101	Intro to Psychology (or other psychology)		PSYCH 1101	General Psychology (or other psychology)	3
	Social Sciences Elective: Any economics, history, political science, sociology, psychology elective	3	Social Sciences	Social Sciences Elective: Any economics, history, political science, sociology, psychology elective	3
		Total Hours	9		
				Total Hours	9

#### Humanities

Select 6 credit hours to include at least one literature.

PHL 101	Intro to Philosophy	3	PHILOS 1105	Self and World: Intro to Philosophy (or other philosophy)	3
ART 1101	Art Appreciation	3	ART 118	Art Appreciation (or other fine art)	3
MUS 111	Music Appreciation	3	MUS 1150	Music Understanding and Appreciation (or other music)	3
THE 122	Intro of Theatre	3	THEATRE 1190	Theatre via Video (or other theater)	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	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
	Other fine art, literature, or philosophy elective	3		Other fine art, literature, or philosophy 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
MAT 242	Introductory Linear Algebra	3	MATH 3108	Linear Algebra Recommended but not required, satisfies a math/stat elective requirement.	3
CPT 135 or CPT 185 or CPT 189	Comp Sci 1 With Python (4) or Programming in C# (3) or Java Programming (3)	3	CS 1500	Computational Problem Solving	3
Maximum Free Electives		6	Maximum Free Electives		6

**Maximum credit hours to be transferred to Missouri S&T degree requirements.**

**60**

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.