

St. Charles Community College — Missouri S&T

Physics BS

Transfer Guide Effective as of Fall 2024

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 Analytic 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, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*Chem 1510 is not an S&T degree requirement. Will transfer as general 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		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 <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
ECO 120 or ECO 110	Principles of Microeconomics or Principles of Macroeconomics <small>or other economics</small>	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics <small>or other economics</small>	3
PSY 101	Intro to Psychology <small>(or other psychology)</small>	3	PSYCH 1101	General Psychology <small>or other psychology</small>	3
Social Science	Any economics, history, political science, sociology, or psychology.	3	Social Science	Any economics, history, political science, sociology, or psychology.	3
Total Hours		9	Total Hours		9

Humanities

Select 6 credit hours to include at least one literature.

PHL 101	Intro to Philosophy <small>or other philosophy</small>	3	PHILOS 1105	Self and World: Intro to Philosophy <small>or other philosophy</small>	3
ART 1101	Art Appreciation <small>or other fine art</small>	3	ART 118	Art Appreciation <small>or other fine art</small>	3
MUS 111	Music Appreciation <small>or other music</small>	3	MUS 1150	Music Understanding and Appreciation <small>or other music</small>	3
THE 122	Intro of Theatre <small>or other theater</small>	3	THEATRE 1190	Theatre via Video <small>or other theater</small>	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 <small>or other literature</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</small>	3
Humanities	Other fine art, literature, or philosophy.	3	Humanities	Other fine art, literature, or philosophy.	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 <small>Recommended but not required; satisfies a math/stat elective requirement.</small>	3
CPT 135 or CPT 185 or CPT 189 or CPT 182*	Comp Sci 1 With Python (4) or Programming in C# (3) or Java Programming (3) or Beginning Programming in C++* (3)	3	CS 1500 or CS 1570, 1580*	Computational Problem Solving (3) or Intro to C++ Programming and Lab* (4) <small>*Will be substituted for the computer science requirement.</small>	3
Electives	Maximum Free Electives	6	Electives	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.