

St. Charles Community College — Missouri S&T

Physics BS

Transfer Guide Effective as of Fall 2025

Students are not required to complete all courses on this guide before transferring to Missouri S&T.

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

Humanities, Arts, and Social Sciences General Education Requirements

From the options listed in each group below, select 15 hours to include
6 hours Humanities and Fine Arts from at least two specific disciplines and
6 hours Behavioral and Social Sciences from at least two specific disciplines.

*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.

Humanities and Fine Arts

Select 6 hours from at least two specific disciplines and at least one literature course.

LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance	3	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature	3
HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	3	HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	American History to 1877 or American History Since 1877 or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	3

Behavioral and Social Sciences

Select 6 hours from at least two specific disciplines.

HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
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Humanities, Arts, and Social Sciences

Select 3 hours.

HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
		Total Hours	15		
				Total Hours	15

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 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*	Computational Problem Solving (3) or Intro to C++ Programming (C++)* (4) *Will be substituted for the computer science requirement.	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.

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This transfer guide is published by Missouri University of Science and Technology and is in effect as of Fall 2025.

Further information or updates are available from Missouri S&T Transfer Admissions at transfer.mst.edu, transfer@mst.edu, or 800-522-0938.