

St. Louis Community College — Missouri S&T

Applied Mathematics 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. Louis Community College

Missouri S&T

English and Communication Skills

Take all courses.

ENG 101	College Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 102 or COM 107 or ENG 103	College Composition II or Public Speaking or Report Writing	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech	3
Total Hours 6			Total Hours 6		

Mathematics, Statistics, and Computer Science

Take all courses.

MTH 210	Analytical Geometry and Calculus I	5	MATH 1214	Calculus I	4
MTH 220	Analytical Geometry and Calculus II	5	MATH 1215	Calculus II	4
MTH 230	Analytical Geometry and Calculus III	5	MATH 2222	Calculus III	4
MTH 240	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
MTH 215	Linear Algebra	3	MATH 3108	Linear Algebra	3
IS 167 or IS 187 or IS 280	C++ Programming I (4) or Java Programming I (4) or Python (3)	3	COMP SCI 1500	Computational Problem Solving	3
Total Hours 24			Total Hours 21		

Natural Sciences

Select PHYSICS 1135 and 1 additional course from the options below. A total of 7 hours will apply to this requirement.

PHY 122	Engineering Physics I ^{required}	5	PHYSICS 1135	Engineering Physics I ^{required}	4
PHY 223	Engineering Physics II	5	PHYSICS 2135	Engineering Physics II	4
CHEM 101 or CHEM 123	Fundamentals of Chemistry I (5) or Fundamentals of Forensic Chemistry (3)	3	CHEM 1301	Introductory Chemistry	3
CHM 105	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 106	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>	3
BIO 111 or BIO 140	Intro to Biology I (4) or Principles of Biology I (5)	4	BIO SCI 1113, 1219 or BIO SCI 1213, 1219	General Biology and Lab or Principles of Biology and Lab	4
BIO 225	Genetics	5	BIO SCI 2223	Genetics	3
GEO 111	Physical Geology	5	GEOLOGY 1110	Physical and Environmental Geology ^{or higher geology}	3
Total Hours 13			Total Hours 7		

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.

ENG 211 or ENG 204 or ENG 205 or ENG 231 or HST 101* or HST 102* or ART 100 or MUS 114 or THT 101	British Literature II or American Literature I or American Literature II or World Literature or US History to 1865* or US History 1865 to Present* or Art Appreciation or Music Appreciation or Intro to Theatre <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
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Behavioral and Social Sciences

6 hours to include ECON 1100 or 1200 and from at least two specific disciplines.

ECO 152 or ECO 151	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HST 115 or HST 128* or GEG 101 or PHL 101 or PHL 102 or PSC 101* or PSY 200 or Foreign Language	Ancient and Medieval History to 1500 or Western Civilization 1500 to Present* or Regional Geography or Intro to Philosophy or Intro to Logic or Intro to American Politics* or General Psychology I or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101or 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 Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3

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
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Additional Degree Requirements

Select additional courses to total up to the maximum transfer credit hours shown below.

Technical Electives	Technical electives in biology, business, chemistry, computer science, economics, education, engineering, finance, geology, geophysics, information science and technology, marketing, mechanics, physics, or technical communication approved by advisor.	Technical Electives	Technical electives in biology, business, chemistry, computer science, economics, education, engineering, finance, geology, geophysics, information science and technology, marketing, mechanics, physics, or technical communication approved by advisor.
Electives	Free Electives	Electives	Free Electives

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.